

AZ-900

496 Questions

Exam Questions and Answers with Explanations

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Question: 1

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

Statements	Yes	No
All the Azure resources deployed to a resource group must use the same Azure region.	<input type="radio"/>	<input type="radio"/>
If you assign a tag to a resource group, all the Azure resources in that resource group are assigned to the same tag.	<input type="radio"/>	<input type="radio"/>
If you assign permissions for a user to manage a resource group, the user can manage all the Azure resources in that resource group.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

No

Yes

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Explanation:

Region: A resource group has a location, but this only specifies where the metadata for that group is stored. The resources contained within the resource group can exist in different Azure regions. This allows for grouping logically related resources that may be geographically distributed for reasons like latency or redundancy.

Tags: Tags applied to a resource group are not automatically inherited by the resources inside it. Each resource, and the resource group itself, is an independent entity that must be tagged separately. Azure Policy can be used to enforce consistent tagging across resources, but it is not an automatic inheritance feature.

Permissions: Azure uses a hierarchical Role-Based Access Control (RBAC) model. When a role (e.g., Contributor) is assigned to a user at a specific scope, such as a resource group, those permissions are inherited by all the resources within that scope. Therefore, a user with management permissions on a resource group can manage all the resources it contains.

References:

- Microsoft. (2024, May 15). Azure Resource Manager overview. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/overview#resource-groups>. (See the "Resource groups" section which states, "...the location of the resource group can be different than the location of the resources.")
- Microsoft. (2024, August 28). Use tags to organize your Azure resources and management hierarchy. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/tag-resources>. (See the "Scope" section, which explicitly states, "Tags applied to the resource group or subscription aren't inherited by the resources.")
- Microsoft. (2024, March 15). What is Azure role-based access control (Azure RBAC)? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/role-based-access-control/overview>. (See the "Scope" section, which explains how permissions assigned at a parent scope, like a resource group, are inherited by child scopes.)

Question: 2

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

Statements	Yes	No
Azure China is operated by Microsoft.	<input type="radio"/>	<input type="radio"/>
Azure Government is operated by Microsoft.	<input type="radio"/>	<input type="radio"/>
Azure Government is available only to US government agencies and their partners.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

Yes

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Explanation:

Azure China: Due to Chinese laws and regulations, Azure services in mainland China are operated by a local partner, Shanghai Blue Cloud Technology Co., Ltd. (21Vianet). Microsoft provides the technology, but 21Vianet operates the datacenters independently. Therefore, Microsoft does not directly operate Azure China.

Azure Government: This cloud environment is engineered to meet the compliance and security requirements of US government agencies. It is operated by screened US persons and is managed by Microsoft.

Azure Government Availability: Access to Azure Government is restricted. It is available to entities from the US federal, state, local, and tribal governments, as well as partners who handle data that is subject to government regulations and requirements.

References:

Microsoft Azure Documentation: Azure China 21Vianet. "Azure China 21Vianet is a physically separated instance of cloud services located in China. It's independently operated and transacted by Shanghai Blue Cloud Technology Co., Ltd. ('21Vianet')."

Source: Microsoft Docs, "Compare Azure China 21Vianet and Azure global," Overview section.
Microsoft Azure Documentation: What is Azure Government?. "Azure Government is a separate instance of the Microsoft Azure service... It is operated by screened US persons and includes a set of additional controls, processes, and compliance to support the needs of US Government customers."

Source: Microsoft Docs, "What is Azure Government?," Overview section.

Microsoft Azure Documentation: Azure Government eligibility. "Azure Government is available to US federal, state, local, and tribal governments, and their partners."

Source: Microsoft Docs, "Guidance for customers - validating eligibility for Azure Government".

Question: 3

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

Statements	Yes	No
A platform as a service (PaaS) solution that hosts web apps in Azure provides full control of the operating systems that host applications.	<input type="radio"/>	<input type="radio"/>
A platform as a service (PaaS) solution that hosts web apps in Azure provides the ability to scale the platform automatically .	<input type="radio"/>	<input type="radio"/>
A platform as a service (PaaS) solution that hosts web apps in Azure provides professional development services to continuously add features to custom applications.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

The first statement is false. In a Platform as a Service (PaaS) model, the cloud provider (Microsoft Azure) manages the underlying infrastructure, including the operating system, patching, and updates. The customer manages their applications and data but does not have direct control over the OS. Full OS control is a characteristic of Infrastructure as a Service (IaaS).

The second statement is true. Automatic scaling, or autoscaling, is a key feature and benefit of Azure PaaS solutions like Azure App Service. This allows the application's resources to automatically increase or decrease based on performance metrics or a defined schedule,

ensuring performance and cost-efficiency.

The third statement is false. PaaS provides the platform, services, and tools to build, deploy, and manage applications, but it does not include professional services to write code or develop features for the customer's application. The customer is responsible for the development and maintenance of their own application code.

References:

Microsoft Documentation, "What is Platform as a service (PaaS)": This document explicitly states, "With PaaS, the cloud provider delivers and manages the hardware and operating systems...while you deploy and manage your applications." This supports the answer for the first and third statements, clarifying the division of responsibilities.

Microsoft Documentation, "Shared responsibility in the cloud": The responsibility matrix for PaaS in this document clearly shows that the "Operating System" is managed by the cloud provider (Microsoft), while the "Application" is managed by the customer. This reinforces the reasoning for the first and third statements.

Microsoft Documentation, "Azure App Service overview": This overview highlights key features, stating that Azure App Service provides "automatic scaling and high availability." It further details how App Service can scale up, out, and automatically based on real-time performance metrics.

This directly supports the answer for the second statement.

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Question: 4

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

Statements	Yes	No
Azure provides flexibility between capital expenditure (CapEx) and operational expenditure (OpEx).	<input type="radio"/>	<input type="radio"/>
If you create two Azure virtual machines that use the B2S size, each virtual machine will always generate the same monthly costs.	<input type="radio"/>	<input type="radio"/>
When an Azure virtual machine is stopped, you continue to pay storage costs associated to the virtual machine.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

Azure provides flexibility between capital expenditure (CapEx) and operational expenditure (OpEx). (Yes) Azure primarily operates on a consumption-based model, which is a form of OpEx, where you pay for services as you use them. This contrasts with the traditional CapEx model of purchasing and maintaining physical hardware. This shift gives organizations the financial flexibility to avoid large upfront investments and instead treat computing as an operational cost.

If you create two Azure virtual machines that use the B2S size, each virtual machine will always generate the same monthly costs. (No) The cost of an Azure VM is not solely determined by its size. Other factors significantly impact the total monthly cost, including the amount of outbound data transfer (egress), the type and size of attached storage disks, applied software licenses, and

the total uptime of the VM. Two identically sized VMs can easily have different usage patterns in these areas, resulting in different monthly bills.

When an Azure virtual machine is stopped, you continue to pay storage costs associated with the virtual machine. (Yes) When a VM is put into the Stopped (deallocated) state, the compute resources are released, and you are no longer billed for the VM's vCPUs and RAM. However, the managed disks (both OS and data disks) attached to the VM are preserved. You continue to be billed for the provisioned storage capacity of these disks because they are still consuming space on Azure's storage infrastructure.

References:

- Microsoft Learn. (2024). Describe the consumption-based model. In "Microsoft Azure Fundamentals: Describe cloud concepts." Section: "Compare capital expenditure (CapEx) and operational expenditure (OpEx)." This document explicitly states, "Cloud computing is an OpEx cost because cloud computing operates on a consumption-based model."
- Microsoft Azure Documentation. (2024). Virtual Machines pricing. Under the "FAQ" section, it details that costs are influenced by virtual machine size, storage, and data transfer. For instance, it notes, "We charge for outbound data transfers...Inbound data transfers are free." This confirms that factors beyond VM size affect cost.
- Microsoft Azure Documentation. (2024). States and billing status for Azure Virtual Machines. In the table describing VM states, it specifies that for the Stopped (deallocated) state, the "Billing status" is "Compute charges stop," but for the associated disks, "You continue to be charged for storage."

Question: 5

This question requires that you evaluate the underlined text to determine if it is correct. When you are implementing a software as a service (SaaS) solution, you are responsible for configuring high availability. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. defining scalability rules
- C. installing the SaaS solution
- D. configuring the SaaS solution

Answer:

D

Explanation:

In the Software as a Service (SaaS) cloud service model, the cloud provider is responsible for managing the underlying infrastructure, including the application, runtime, data, operating systems, and physical hardware. This management responsibility includes ensuring high availability and scalability of the service. The customer's primary responsibility is to manage their data within the service and configure the application-specific settings to suit their organizational needs, such as managing user access and customizing features. Therefore, the customer is responsible for configuring the SaaS solution, not its high availability.

Why Incorrect Options are Wrong:

- A. No change is needed: This is incorrect because the cloud provider, not the customer, is responsible for configuring and maintaining high availability for a SaaS solution.
- B. defining scalability rules: This is incorrect. The SaaS provider manages the infrastructure and is responsible for ensuring the service scales to meet demand.
- C. installing the SaaS solution: This is incorrect. The core principle of SaaS is that the software is already installed, hosted, and managed by the provider.

References:

1. Microsoft Learn: In the "Shared responsibility in the cloud" documentation, the responsibility chart for SaaS clearly indicates that the cloud provider manages the application and the entire underlying infrastructure (physical hosts, network, datacenter). The customer's responsibility is focused on their data, devices, and accounts, which falls under the umbrella of configuring the solution for their use.

Source: Microsoft Learn, "Shared responsibility in the cloud", Cloud service models section.

2. NIST (National Institute of Standards and Technology): The official definition of SaaS states that the consumer uses the provider's application but "does not manage or control the underlying cloud infrastructure... with the possible exception of limited user-specific application configuration settings." This confirms the customer's role is configuration, not infrastructure management like high availability.

Source: NIST Special Publication 800-145, "The NIST Definition of Cloud Computing", Section 2, Page 3.

Question: 6

You have an on-premises network that contains several servers. You plan to migrate all the servers to Azure. You need to recommend a solution to ensure that some of the servers are available if a single Azure data center goes offline for an extended period. What should you include in the recommendation?

- A. fault tolerance
- B. elasticity
- C. scalability
- D. low latency

Answer:

A

Explanation:

Fault tolerance is the ability of a system to continue operating without interruption when one or more of its components fail. The scenario describes a requirement to ensure server availability even if an entire Azure data center fails. This is a classic example of a component failure.

Implementing a fault-tolerant architecture in Azure, for instance by deploying virtual machines across multiple Availability Zones (which are physically separate data centers within a region), directly addresses this requirement, ensuring the service remains operational.

Why Incorrect Options are Wrong:

- B. elasticity: This refers to the ability to automatically scale computing resources up or down based on demand, which is related to performance and cost-efficiency, not failure recovery.
- C. scalability: This is the ability to increase or decrease resources to meet changing demands. While related to performance, it does not inherently provide protection against a data center failure.
- D. low latency: This refers to minimizing network delay for better performance and user experience. It is a performance metric, not a principle for ensuring availability during an outage.

References:

1. Microsoft Learn. (2024). Describe fault tolerance and disaster recovery. In "AZ-900: Describe core architectural components of Azure". Section: "Describe fault tolerance".
"Fault tolerance is the ability of a system to remain operational even if some of the components of the system fail... A fault-tolerant environment has no service interruption." This directly defines the concept needed to handle a component (data center) failure.
2. Microsoft Learn. (2024). What are Azure regions and Availability Zones?. Section: "Availability Zones".

"Availability Zones are physically separate datacenters within an Azure region... With Availability Zones, you can build and run applications and databases that automatically transition between zones without interruption. Azure Availability Zones are highly available, fault tolerant, and more scalable than traditional single or multiple datacenter infrastructures." This source explicitly links fault tolerance to surviving data center failures using Availability Zones.

3. Microsoft Learn. (2023). Describe the benefits of using cloud services. In "AZ-900: Describe cloud concepts". Section: "Describe scalability and elasticity".

This document defines scalability as the ability to add resources to handle increased load and elasticity as the ability to automatically add or remove resources, distinguishing them from fault tolerance.

Question: 7

This question requires that you evaluate the underlined text to determine if it is correct. An organization that hosts its infrastructure in a private cloud can decommission its data center. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. in a hybrid cloud
- C. in the public cloud
- D. on a Hyper-V host

Answer:

C

Explanation:

An organization can decommission its on-premises data center by migrating its infrastructure to the public cloud. In a public cloud model, a third-party provider (like Microsoft Azure) owns, manages, and is responsible for all the physical infrastructure, including servers, storage, networking, and the data center facilities themselves. By moving to the public cloud, the organization offloads the capital and operational expense of maintaining its own data center, allowing it to be decommissioned.

Why Incorrect Options are Wrong:

- A. No change is needed: A private cloud is a cloud environment dedicated to a single organization, which is often hosted on-premises within the organization's own data center.
- B. in a hybrid cloud: A hybrid cloud model combines a public cloud with a private cloud or on-premises infrastructure, meaning the on-premises data center is still in use.
- D. on a Hyper-V host: Hyper-V is a hypervisor used for virtualization. It is a technology component typically run within a data center, not a deployment model that replaces it.

References:

1. Microsoft Learn. "Describe cloud concepts - Cloud deployment models." AZ-900: Microsoft Azure Fundamentals. This module defines the public cloud as being owned by a cloud services provider, where the provider is responsible for all hardware and maintenance. It contrasts this with a private cloud, which an organization creates and maintains in its own data center.
 2. Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.
- Section: "Deployment Models" (Page 3): Defines a Public Cloud as "The cloud infrastructure is provisioned for open use by the general public... It is owned, managed, and operated by a

business, academic, or government organization, or some combination of them."

Section: "Deployment Models" (Page 3): Defines a Private Cloud as "The cloud infrastructure is provisioned for exclusive use by a single organization... It may be owned, managed, and operated by the organization, a third party, or some combination of them, and it may exist on or off premises." This confirms a private cloud does not inherently allow for data center decommissioning.

3. University of California, Berkeley. "Introduction to Cloud Computing." CS 162: Operating Systems and System Programming. The course materials distinguish public clouds (e.g., AWS, Azure) where users rent resources from a provider who manages the physical infrastructure, from private clouds which are operated for a single organization. This distinction supports that only a public cloud model allows for eliminating the organization's own data center.

Question: 8

What are two characteristics of the public cloud? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. dedicated hardware
- B. unsecured connections
- C. limited storage
- D. metered pricing
- E. self-service management

Answer:

D, E

Explanation:

The public cloud model is defined by several key characteristics. Metered pricing, often called pay-as-you-go, is a fundamental aspect where consumers are billed only for the resources they use, shifting costs from capital to operational expenditure. Self-service management is another core tenet, enabling users to provision, configure, and manage computing resources on-demand through web portals or APIs without requiring human interaction from the provider. These two features provide the agility and financial flexibility that are hallmarks of the public cloud.

Why Incorrect Options are Wrong:

- A. dedicated hardware: This is a characteristic of private clouds or dedicated hosting, not the multi-tenant, shared infrastructure model of the public cloud.
- B. unsecured connections: Public cloud providers offer extensive security measures and secure connectivity options; they are not inherently unsecured.
- C. limited storage: The public cloud is characterized by massive scalability and the perception of near-limitless resources, including storage.

References:

1. Microsoft Learn. "What is public cloud?" Azure Fundamentals: Describe cloud concepts. Microsoft. Accessed May 20, 2024. This document states, "The public cloud is a consumption-based model. Consumers are only billed for the resources they use." This supports the metered pricing (D) and self-service management (E) concepts.
 2. Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.
<https://doi.org/10.6028/NIST.SP.800-145>
- Page 2, "Essential Characteristics": This foundational document lists "On-demand self-service"

and "Measured service" as two of the five essential characteristics of cloud computing, which directly correspond to options E and D. "Measured service" is the principle behind metered pricing.

3. Microsoft Learn. "Describe the consumption-based model." Azure Fundamentals: Describe cloud concepts. Microsoft. Accessed May 20, 2024. This resource explains, "Cloud computing is based on a consumption-based model... you only pay for what you use," which directly validates the metered pricing (D) characteristic.

Question: 9

This question requires that you evaluate the underlined text to determine if it is correct. When planning to migrate a public website to Azure, you must plan to pay monthly usage costs.

Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. Deploy a VPN
- C. pay to transfer all the website data to Azure
- D. reduce the number of connections to the website

Answer:

A

Explanation:

The statement is correct. Azure's primary pricing model is pay-as-you-go, meaning you pay for the cloud resources you consume. When migrating a public website, you will use services such as Azure App Service, Virtual Machines, Storage, and Bandwidth. The costs for these services are based on usage and are typically billed on a monthly cycle. Therefore, a fundamental and mandatory part of the migration planning process is to forecast and budget for these recurring monthly costs to ensure financial viability and avoid unexpected expenses.

Why Incorrect Options are Wrong:

- B. Deploy a VPN: A VPN is used for secure, private connections and is not a mandatory requirement for migrating a public-facing website.
- C. pay to transfer all the website data to Azure: Inbound data transfers (data going into Azure data centers) are generally free. Costs are typically incurred for data egress (outbound transfers).
- D. reduce the number of connections to the website: This is an operational or performance goal, not a fundamental planning requirement for the migration itself. The goal is often to handle more connections, not fewer.

References:

1. Microsoft Learn, "Describe cost management in Azure": This module explains the pay-as-you-go model. It states, "With a pay-as-you-go model, you pay only for what you use... Azure bills you each month for the resources that you used." This confirms that planning for monthly usage costs is essential.
Source: Microsoft Learn, "Principles of cloud computing," Module: "Describe cost management in Azure," Unit: "Describe factors that can affect costs in Azure."
2. Azure Pricing, "Bandwidth Pricing Details": This official documentation clarifies the cost of data

transfer. It explicitly states, "Inbound data transfers (i.e., data going into Azure datacenters) are free." This refutes option C.

Source: Microsoft Azure Official Website, "Pricing" section, "Bandwidth Pricing Details" page.

3. Microsoft Learn, "Plan and manage your Azure costs": This learning path emphasizes the importance of cost planning. It states, "Before you deploy any infrastructure, you need to get an idea of how much it will cost... Azure provides tools to help you estimate your costs." This supports the original statement's focus on planning for costs.

Source: Microsoft Learn, Learning Path: "Microsoft Azure Well-Architected Framework - Cost Optimization," Module: "Estimate costs with the Azure pricing calculator."

Question: 10

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. An Azure administrator plans to run a PowerShell script that creates Azure resources. You need to recommend which computer configuration to use to run the script. Solution: Run the script from a computer that runs Linux and has the Azure CLI tools installed. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The stated goal is to run a PowerShell script. The proposed solution is to use a computer running Linux with the Azure CLI tools installed. The Azure CLI is a command-line interface for managing Azure resources, but it does not execute PowerShell scripts. To run a PowerShell script that manages Azure resources, the computer must have PowerShell and the Azure PowerShell (Az) module installed. While PowerShell can be installed on Linux, the solution incorrectly specifies the Azure CLI as the required toolset instead of the necessary PowerShell environment and its Azure module.

Why Incorrect Options are Wrong:

- A. Yes: This is incorrect. The Azure CLI is a distinct command-line tool and cannot natively execute PowerShell scripts. The correct environment requires PowerShell and the Azure PowerShell module.

References:

1. Microsoft Docs, "Choose the right Azure command-line tool": This document explicitly differentiates between Azure PowerShell and Azure CLI. It states, "Azure PowerShell is a PowerShell module... Azure CLI is a command-line program... You can't use them interchangeably." This confirms that the CLI is not the correct tool for running PowerShell scripts. Source: Microsoft Learn, "Choose the right Azure command-line tool", Introduction section.
2. Microsoft Docs, "Install Azure PowerShell on Linux": This official guide details the prerequisites for running Azure PowerShell on Linux. It specifies that "PowerShell version 7 or higher" must be installed, followed by the installation of the "Az PowerShell module." It makes no mention of the

Azure CLI being a requirement or a substitute.

Source: Microsoft Learn, "Install Azure PowerShell on Linux", Prerequisites section.

3. Microsoft Docs, "What is Azure PowerShell?": This document defines Azure PowerShell as "a set of cmdlets for managing Azure resources directly from PowerShell." This reinforces that PowerShell scripts require the PowerShell environment and the specific Azure module, not the Azure CLI.

Source: Microsoft Learn, "What is Azure PowerShell?", Overview section.

Question: 11

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. An Azure administrator plans to run a PowerShell script that creates Azure resources. You need to recommend which computer configuration to use to run the script. Solution: Run the script from a computer that runs Chrome OS and uses Azure Cloud Shell. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The proposed solution meets the goal. Azure Cloud Shell is a browser-accessible command-line interface for managing Azure resources. It can be run from any computer with a modern web browser, including one running Chrome OS. Cloud Shell provides a choice of shells, including PowerShell, which comes pre-configured with the necessary Azure modules and is automatically authenticated. Therefore, an administrator can use a Chrome OS device to open a browser, launch Azure Cloud Shell, and run a PowerShell script to create Azure resources without any local installation or configuration.

Why Incorrect Options are Wrong:

B. No: This is incorrect because Azure Cloud Shell is platform-independent and requires only a supported web browser, which is the core component of Chrome OS.

References:

1. Microsoft Learn. (2023). Overview of Azure Cloud Shell. "Azure Cloud Shell is an interactive, authenticated, browser-accessible shell for managing Azure resources... Cloud Shell is built on open-source tools, supports multiple languages, and is automatically maintained and updated by Microsoft."
2. Microsoft Learn. (2023). Features & tools for Azure Cloud Shell. Under the "Tools" section, it confirms that the latest version of Azure PowerShell is pre-installed. It states, "Cloud Shell comes with the latest Azure PowerShell module pre-installed."
3. Microsoft Learn. (2024). Quickstart for PowerShell in Azure Cloud Shell. This document guides users on how to start Cloud Shell in a browser and run PowerShell commands, demonstrating its

capability. The "Prerequisites" section only lists an Azure subscription.

Question: 12

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. An Azure administrator plans to run a PowerShell script that creates Azure resources. You need to recommend which computer configuration to use to run the script. Solution: Run the script from a computer that runs macOS and has PowerShell Core 6.0 installed. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The proposed solution meets the goal. Azure PowerShell is not limited to the Windows operating system. Microsoft provides PowerShell, a cross-platform version (formerly known as PowerShell Core), that runs on Windows, macOS, and Linux. The Azure Az PowerShell module is designed to be compatible with this version of PowerShell. Therefore, an administrator can install PowerShell and the Azure Az module on a computer running macOS to write and execute scripts that create and manage Azure resources. This configuration is a fully supported environment for Azure administration.

Why Incorrect Options are Wrong:

B. No: This option is incorrect. The Azure Az PowerShell module is explicitly designed for cross-platform use with PowerShell (version 6.x and later), which includes macOS as a supported operating system.

References:

1. Microsoft Learn. (2023). Introduction to the Azure Az PowerShell module. "The Az module runs on PowerShell 5.1 on Windows and on PowerShell Core 6.x and later on all platforms including Windows, macOS, and Linux."
2. Microsoft Learn. (2024). Install the Azure Az PowerShell module. Under the "Supported platforms" section, macOS (10.13 or later) is listed as a supported operating system for the Azure Az PowerShell module.
3. Microsoft Learn. (2024). Install Azure PowerShell on macOS. This document provides specific instructions for installing the Azure Az PowerShell module on the macOS platform, confirming it is

a valid configuration. "This article explains how to install the Azure Az PowerShell module from the PowerShell Gallery on macOS."

Question: 13

You have an Azure environment that contains 10 virtual networks and 100 virtual machines. You need to limit the amount of inbound traffic to all the Azure virtual networks. What should you create?

- A. one network security group (ASG)
- B. 10 virtual network gateways
- C. 10 Azure ExpressRoute circuits
- D. one Azure firewall

Answer:

D

Explanation:

Azure Firewall is a managed, cloud-native, and intelligent network firewall security service that provides threat protection for cloud workloads running in Azure. It is a fully stateful service that can be deployed in a central virtual network (a hub-and-spoke model) to inspect and filter all inbound and outbound traffic for multiple spoke virtual networks. This allows you to centrally create, enforce, and log network connectivity policies across all 10 virtual networks, fulfilling the requirement to limit inbound traffic in a scalable and manageable way.

Why Incorrect Options are Wrong:

- A. A single Network Security Group (NSG) cannot be applied to 10 different virtual networks; NSGs are applied to subnets or network interfaces within a single VNet.
- B. Virtual network gateways are used to establish secure connectivity (e.g., VPN, VNet-to-VNet) and are not designed as a primary tool for stateful traffic filtering.
- C. Azure ExpressRoute circuits are used to create private, dedicated connections between on-premises networks and Azure, not for filtering traffic to virtual networks.

References:

1. Microsoft Azure Documentation. (2023). What is Azure Firewall? Microsoft Docs. Retrieved from <https://docs.microsoft.com/en-us/azure/firewall/overview>.
Section: Introduction. "Azure Firewall is a managed, cloud-based network security service that protects your Azure Virtual Network resources... You can centrally create, enforce, and log application and network connectivity policies across subscriptions and virtual networks."
2. Microsoft Learn. (2023). Describe Azure Firewall. MS Learn Module: Describe Azure network security. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-network-security/3-describe-azure-firewall>.
Section: What is Azure Firewall? "Azure Firewall is a stateful, managed, network security service

that protects your Azure Virtual Network resources... You can create policies that span multiple virtual networks and subscriptions."

3. Microsoft Azure Documentation. (2023). Network security groups. Microsoft Docs. Retrieved from <https://docs.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview>. Section: Introduction. "You can associate a network security group to, or dissociate a network security group from: A network interface... A subnet." (This confirms NSGs are scoped to resources within a single VNet).

Question: 14

HOTSPOT You need to view a list of planned maintenance events that can affect the availability of an Azure subscription. Which blade should you use from the Azure portal? To answer, select the appropriate blade in the answer area.



Answer:

Help + support

Explanation:

The Help + support blade in the Azure portal provides access to Azure Service Health. Service Health delivers personalized alerts and guidance when Azure service issues, such as outages or planned maintenance, affect your resources. It tracks three types of health events: service issues, planned maintenance, and health advisories. By navigating to this blade, you can view all upcoming planned maintenance activities that are relevant to your subscriptions and resources, allowing you to prepare for any potential impact on availability.

References:

Microsoft Azure Documentation: "View service health notifications by using the Azure portal." Microsoft Learn. The documentation explicitly states the navigation path: "In the Azure portal, select Help + support Service Health." This section details how to access information on planned maintenance.

Reference: Microsoft, "Tutorial: View service health notifications by using the Azure portal," Microsoft Learn,
learn.microsoft.com/en-us/azure/service-health/service-health-notifications-portal, Accessed Sep. 5, 2025.

Microsoft Azure Documentation: "What is Azure Service Health?" Microsoft Learn. This document defines Azure Service Health as the service that provides information about planned maintenance events.

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Reference: Microsoft, "What is Azure Service Health?," Microsoft Learn,
learn.microsoft.com/en-us/azure/service-health/service-health-overview, Section: "Service Health events," Accessed Sep. 5, 2025.

Question: 15

DRAG DROP Match the Azure service to the correct definition. Instructions: To answer, drag the appropriate Azure service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Answer Options	Answer Area
Azure Advisor	An integrated solution for the deployment of code
Azure Cognitive Services	A tool that provides guidance and recommendations to improve an Azure environment
Azure Application Insights	A simplified tool to build intelligent Artificial Intelligence (AI) applications
Azure DevOps	Monitors web applications

Answer:

Azure DevOps: An integrated solution for the deployment of code

Azure Advisor: A tool that provides guidance and recommendations to improve an Azure environment

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Azure Cognitive Services: A simplified tool to build intelligent Artificial Intelligence (AI) applications

Azure Application Insights: Monitors web applications

Explanation:

Azure DevOps provides a comprehensive suite of tools for the entire software development lifecycle, including planning, development, delivery, and operations. This makes it the integrated solution for code deployment.

Azure Advisor acts as a personalized cloud consultant, analyzing your Azure resources and providing actionable recommendations to optimize for reliability, security, performance, operational excellence, and cost.

Azure Cognitive Services offers a portfolio of pre-built AI models and APIs that enable developers to easily add intelligent features-such as vision, speech, language, and decision-making capabilities-into their applications without requiring deep AI expertise.

Azure Application Insights, a feature of Azure Monitor, is an Application Performance

Management (APM) service used to monitor live web applications, detect performance anomalies, and diagnose issues.

References:

Azure DevOps: Microsoft Learn. (n.d.). What is Azure DevOps?. Retrieved September 5, 2025. In the "Overview" section, it states, "Azure DevOps provides developer services to support teams to plan work, collaborate on code development, and build and deploy applications."

Azure Advisor: Microsoft Learn. (n.d.). Introduction to Azure Advisor. Retrieved September 5, 2025. The introductory paragraph describes Azure Advisor as "...a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments. It analyzes your resource configuration and usage telemetry and then recommends solutions..."

Azure Cognitive Services: Microsoft Learn. (n.d.). What are Azure Cognitive Services?. Retrieved September 5, 2025. The "Overview" section states, "Azure Cognitive Services are cloud-based artificial intelligence (AI) services that help developers build cognitive intelligence into applications without having direct AI or data science skills or knowledge."

Azure Application Insights: Microsoft Learn. (n.d.). What is Application Insights?. Retrieved September 5, 2025. The first paragraph of the "Overview" section explains, "Application Insights, a feature of Azure Monitor, is an extensible Application Performance Management (APM) service for developers and DevOps professionals. Use it to monitor your live applications."

Question: 16

You plan to map a network drive from several computers that run Windows 10 to Azure Storage. You need to create a storage solution in Azure for the planned mapped drive. What should you create?

- A. an Azure SQL database
- B. a virtual machine data disk
- C. a Files service in a storage account
- D. a Blobs service in a storage account

Answer:

C

Explanation:

The requirement is to map a network drive from Windows 10 computers to an Azure storage solution. Azure Files is the service designed for this purpose. It offers fully managed file shares in the cloud that are accessible via the industry-standard Server Message Block (SMB) protocol. Windows natively uses the SMB protocol to map network drives, allowing multiple machines to mount and access the file share concurrently, just like a traditional on-premises file server.

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Why Incorrect Options are Wrong:

- A. an Azure SQL database: This is a relational database service (PaaS) for storing structured data. It cannot be mounted as a file share or a mapped network drive.
- B. a virtual machine data disk: This is block storage (an Azure Managed Disk) that can only be attached to a single Azure Virtual Machine at a time; it cannot be directly mapped by multiple external computers.
- D. a Blobs service in a storage account: This is object storage for unstructured data like images or videos, accessed via REST APIs. It does not support the SMB protocol and cannot be mapped as a network drive.

References:

1. Microsoft Learn, "What is Azure Files?": "Azure Files offers fully managed file shares in the cloud that are accessible via the industry standard Server Message Block (SMB) protocol... Being able to mount a file share on your local computer is a key differentiator for Azure Files." Source: Microsoft Learn, Azure Fundamentals (AZ-900) course, "Describe Azure storage services" module, "Describe Azure Files" unit.
2. Microsoft Learn, "Introduction to Azure Blob storage": "Azure Blob Storage is Microsoft's object storage solution for the cloud... Access to Azure Blob Storage is managed through Azure Storage accounts. You access objects (blobs) in Storage Accounts by using HTTP or HTTPS."

Source: Microsoft Learn, "Core Azure Services" learning path, "Introduction to Azure Blob storage" module.

3. Microsoft Learn, "Introduction to Azure managed disks": "Azure managed disks are block-level storage volumes that are managed by Azure and used with Azure Virtual Machines... A managed disk is attached to a virtual machine."

Source: Microsoft Learn, "Azure fundamentals: Describe Azure architecture and services" learning path, "Describe core Azure architectural components" module, "Describe Azure compute and networking services" unit.

4. Microsoft Learn, "What is Azure SQL Database?": "Azure SQL Database is a fully managed platform as a service (PaaS) database engine that handles most of the database management functions... It's a relational database service..."

Source: Microsoft Learn, "Azure Data Fundamentals: Explore core data concepts" learning path, "Explore relational data in Azure" module, "Explore Azure SQL services" unit.

Question: 17

HOTSPOT You plan to implement an Azure database solution. You need to implement a database solution that meets the following requirements: Can add data concurrently from multiple regions Can store JSON documents Which database service should you deploy? To answer, select the appropriate service in the answer area.

Databases (15)	
Azure Cosmos DB	*
Azure Database for MySQL servers	*
SQL servers	*
Azure Database Migration Services	*
SQL Server stretch databases	*
SQL elastic pools	*
Managed databases	*
SQL managed instances	*
SQL databases	*
Azure Database for PostgreSQL servers	*
SQL data warehouse	*
Redis Caches	*
Data factories	*
Virtual clusters	*
Elastic Job agents	PREVIEW *

Answer:

Azure Cosmos DB

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Explanation:

Azure Cosmos DB is the correct choice as it is specifically designed to meet both requirements. It is a globally distributed, multi-model database service that supports multi-region writes, which allows data to be added concurrently from multiple regions with low latency. Furthermore, as a NoSQL database, it natively stores data in various models, including the document model, which uses JSON (JavaScript Object Notation) documents. Other services like Azure SQL Database, Azure Database for MySQL, and Azure Database for PostgreSQL are primarily relational databases and do not offer the same native multi-region concurrent write capabilities.

References:

1. Microsoft Learn, "Distribute your data globally with Azure Cosmos DB": This document states, "With Azure Cosmos DB, you can configure your accounts to have multiple write regions. Enabling the multi-region writes capability has the following benefits: Unlimited write scalability. Low-latency writes." This directly addresses the requirement to add data concurrently from multiple regions.
2. Microsoft Learn, "Data modeling in Azure Cosmos DB for NoSQL": This source explains, "Azure Cosmos DB for NoSQL stores items in containers, which are then stored in databases. In the API for NoSQL, an item is a JSON document with a unique identifier." This confirms its

capability to store JSON documents.

3. Microsoft Learn, AZ-900 Exam Study Guide, "Describe Azure database services": The guide describes Azure Cosmos DB as a "globally distributed, multi-model database service" that allows you to "elastically and independently scale throughput and storage across any number of Azure regions worldwide." This reinforces its suitability for globally distributed applications requiring multi-region access.

Question: 18

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

Statements	Yes	No
All the Azure resources deployed to a single resource group must share the same Azure region.	<input type="radio"/>	<input type="radio"/>
If you assign a tag to a resource group, all the Azure resources in that resource group are assigned to the same tag.	<input type="radio"/>	<input type="radio"/>
If you set permissions to a resource group, all the Azure resources in that resource group inherit the permissions.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

Region Requirement: A resource group has a location, which stores its metadata. However, the resources contained within that resource group can be in different Azure regions. This allows for grouping logically related resources together regardless of their physical location.

Tag Inheritance: Tags applied to a resource group are not automatically inherited by the resources within it. Each resource, resource group, and subscription must be tagged individually. While Azure Policy can be used to enforce consistent tagging, inheritance is not a default behavior.

Permission Inheritance: Azure Role-Based Access Control (RBAC) permissions are hierarchical. When you apply a role assignment (permission) at a parent scope, such as a resource group,

those permissions are inherited by all child resources within that scope.

References:

Azure Resource Manager documentation:

Regarding resource group location vs. resource location: "The resource group stores metadata about the resources... When you specify a location for the resource group, you're specifying where that metadata is stored. For compliance reasons, you may need to ensure that your data is stored in a particular region. The location of the resource group can be different from the location of the resources."

Source: Microsoft Docs, "What is Azure Resource Manager?", Section: "Terminology".

Regarding RBAC inheritance: "When you grant access at a parent scope, those permissions are inherited by the child scopes. For example... If you grant the Contributor role to a group at the resource group scope, the members of that group can manage all resources in the resource group."

Source: Microsoft Docs, "What is Azure role-based access control (Azure RBAC)?", Section: "Scope".

Azure tagging documentation:

Regarding tag inheritance: "When you apply a tag to a resource group, the tag isn't inherited by the resources in that resource group."

Source: Microsoft Docs, "Use tags to organize your Azure resources and management hierarchy",
CertMage.com Section: "Tags and billing".

Question: 19

Your company plans to deploy an Artificial Intelligence (AI) solution in Azure. What should the company use to build, test, and deploy predictive analytics solutions?

- A. Azure Logic Apps
- B. Azure Machine Learning designer
- C. Azure Batch
- D. Azure Cosmos DB

Answer:

B

Explanation:

Azure Machine Learning designer is a drag-and-drop, visual interface within the Azure Machine Learning service. It is specifically engineered to create an end-to-end workflow for building, testing, and deploying machine learning models, which are the foundation of predictive analytics. The designer provides prebuilt components for data ingestion, transformation, model training, and evaluation, allowing users to visually construct a predictive model and then deploy it as a web service. This directly aligns with the requirement to build, test, and deploy predictive analytics solutions without needing to write extensive code.

Why Incorrect Options are Wrong:

- A. Azure Logic Apps: This is a cloud-based platform for creating and running automated workflows that integrate apps, data, and services. It is not designed for building or training machine learning models.
- C. Azure Batch: This service is used for running large-scale parallel and high-performance computing (HPC) applications. It manages compute resources, but does not provide tools for model development.
- D. Azure Cosmos DB: This is a globally distributed, multi-model NoSQL database service. It is used for storing and managing data, not for building or deploying predictive analytics models.

References:

1. Microsoft Learn. "What is Azure Machine Learning designer?" Azure Machine Learning Documentation. "Azure Machine Learning designer is a drag-and-drop interface used to train and deploy models in Azure Machine Learning... The designer gives you a visual canvas to build, test, and deploy machine learning models."
2. Microsoft Learn. "AZ-900: Describe concepts of artificial intelligence and machine learning on Azure." Learning Path: Azure Fundamentals: Describe Azure architecture and services. This module identifies Azure Machine Learning as the primary service for creating custom machine

learning solutions, with the designer being a key feature for visual model creation.

3. Microsoft Learn. "What is Azure Logic Apps?" Azure Logic Apps Documentation. "Azure Logic Apps is a cloud platform where you can create and run automated workflows with little to no code."

4. Microsoft Learn. "What is Azure Batch?" Azure Batch Documentation. "Use Azure Batch to run large-scale parallel and high-performance computing (HPC) batch jobs efficiently in Azure."

Question: 20

HOTSPOT Several support engineers plan to manage Azure by using the computers shown in the following table:

Name	Operating system
Computer1	Windows 10
Computer2	Ubuntu
Computer3	MacOS Mojave

You need to identify which Azure management tools can be used from each computer. What should you identify for each computer? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Computer1:

The Azure CLI and the Azure portal	<input checked="" type="checkbox"/>
The Azure portal and Azure PowerShell	<input type="checkbox"/>
The Azure CLI and Azure PowerShell	<input type="checkbox"/>
The Azure CLI, the Azure portal, and Azure PowerShell	<input type="checkbox"/>

Computer2:

The Azure CLI and the Azure portal	<input checked="" type="checkbox"/>
The Azure portal and Azure PowerShell	<input type="checkbox"/>
The Azure CLI and Azure PowerShell	<input type="checkbox"/>
The Azure CLI, the Azure portal, and Azure PowerShell	<input type="checkbox"/>

Computer3:

The Azure CLI and the Azure portal	<input checked="" type="checkbox"/>
The Azure portal and Azure PowerShell	<input type="checkbox"/>
The Azure CLI and Azure PowerShell	<input type="checkbox"/>
The Azure CLI, the Azure portal, and Azure PowerShell	<input type="checkbox"/>

Answer:

Computer1: The Azure CLI, the Azure portal, and Azure PowerShell

Computer2: The Azure CLI, the Azure portal, and Azure PowerShell

Computer3: The Azure CLI, the Azure portal, and Azure PowerShell

Explanation:

All three specified Azure management tools are designed for cross-platform compatibility.

- The Azure portal is a web-based interface accessible through any modern web browser, making it independent of the underlying operating system (Windows, Linux, or macOS).
- The Azure CLI is a cross-platform command-line tool with dedicated installation packages available for Windows, Linux distributions like Ubuntu, and macOS.
- Azure PowerShell is a module that runs on PowerShell 7.x (formerly PowerShell Core), which is an open-source, cross-platform framework supported on Windows, macOS, and Linux.

Therefore, all three computers, regardless of their operating system, can utilize the Azure portal, the Azure CLI, and Azure PowerShell for managing Azure resources.

References:

Azure Management Tools Overview (Microsoft Learn): This document explicitly lists the Portal, PowerShell, and CLI as primary management tools and details their general capabilities.

Source: Microsoft Corporation. (2024). Azure management tools. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/management-tools>
Section: "Azure management tools" table.

Install the Azure CLI (Microsoft Learn): This official documentation provides specific installation instructions for the Azure CLI on Windows, macOS, and Linux (including distributions like Ubuntu).

Source: Microsoft Corporation. (2024). How to install the Azure CLI. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/cli/azure/install-azure-cli>

Sections: Tabs for "Windows," "macOS," and "Linux."

Install Azure PowerShell (Microsoft Learn): This guide details the installation process for the Azure PowerShell Az module on various platforms, confirming its availability on Windows, macOS, and Linux.

Source: Microsoft Corporation. (2024). How to install the Azure Az PowerShell module. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/powershell/azure/install-az-ps>

Section: "Installation," which covers Windows PowerShell, PowerShellGet, macOS, and Linux.
Azure Portal Supported Browsers (Microsoft Learn): This document lists the recommended modern browsers for accessing the Azure portal, all of which are available on Windows, macOS, and Linux, confirming the portal's OS-agnostic nature.

Source: Microsoft Corporation. (2024). Recommended browsers and devices. Microsoft Learn.

Retrieved from

<https://learn.microsoft.com/en-us/azure/azure-portal/azure-portal-supported-browsers-devices>

Section: "Recommended browsers."

Question: 21

This question requires that you evaluate the Bold text to determine if it is correct. Azure policies provide a common platform for deploying objects to a cloud infrastructure and for implementing consistency across the Azure environment. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. Resource groups provide
- C. Azure Resource Manager provides
- D. Management groups provide

Answer:

C

Explanation:

Azure Resource Manager (ARM) is the deployment and management service for Azure. It provides a consistent management layer that enables you to create, update, and delete resources. By using declarative templates (ARM templates), you can deploy and manage your infrastructure in a repeatable and consistent manner, which directly aligns with being a "common platform for deploying objects... and for implementing consistency."

Why Incorrect Options are Wrong:

- A. No change is needed: Azure Policy is a governance service used to enforce rules and ensure compliance for resources; it does not deploy them.
- B. Resource groups provide: Resource groups are logical containers used to group and manage the lifecycle of related Azure resources, not a deployment platform.
- D. Management groups provide: Management groups are containers for managing access, policy, and compliance across multiple subscriptions, not a service for deploying resources.

References:

1. Microsoft Learn. (2023). What is Azure Resource Manager? Azure Fundamentals: Describe Azure management and governance. "Azure Resource Manager is the deployment and management service for Azure. It provides a management layer that enables you to create, update, and delete resources in your Azure account."
2. Microsoft Learn. (2023). Azure Resource Manager overview. "With Resource Manager, you can... Deploy, manage, and monitor all the resources for your solution as a group, rather than handling these resources individually... Use declarative templates (ARM templates) to define your deployment."

3. Microsoft Learn. (2023). What is Azure Policy? Azure Fundamentals: Describe Azure management and governance. "Azure Policy is a service in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant with your corporate standards and service level agreements."

Question: 22

DRAG DROP Match the Azure service to the correct description. Instructions: To answer, drag the appropriate Azure service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct selection is worth one point.

Answer Options	Answer Area	
Azure Machine Learning		Provides a digital online assistant that provides speech support
Azure IoT Hub		Uses past trainings to provide predictions that have high probability
Azure AI bot		Provides serverless computing functionalities
Azure Functions		Processes data from millions of sensors

Answer:

Azure AI Bot provides a digital online assistant that provides speech support

Azure Machine Learning uses past training to provide predictions that have high probability

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Azure Functions provides serverless computing functionalities

Azure IoT Hub Processes data from millions of sensors

Explanation:

Azure AI Bot Service is designed to build, deploy, and manage bots that provide conversational AI experiences. These bots act as digital assistants and can be integrated with various channels, including those that support speech.

Azure Machine Learning is a cloud-based environment used to train, deploy, and manage machine learning models. Its core function is to use historical data (past trainings) to create predictive models.

Azure Functions is an event-driven, serverless compute platform that allows you to run small pieces of code ("functions") without managing the underlying infrastructure.

Azure IoT Hub acts as a central message hub for communication between IoT applications and the devices they manage. It is designed to scale and handle data ingestion from millions of

devices, such as sensors.

References:

- Azure AI Bot Service: Microsoft. (n.d.). What is Azure Bot Service? Azure Documentation. Retrieved September 5, 2025. In the "Overview" section, the documentation states, "The Azure Bot Service...provides an integrated environment for bot development," and it can "Speak and listen with Speech."
- Azure Machine Learning: Microsoft. (n.d.). What is Azure Machine Learning? Azure Documentation. Retrieved September 5, 2025. The "Overview" section explains that Azure Machine Learning is a service to "Train models based on data...Then you can use the trained model to get predictions."
- Azure Functions: Microsoft. (n.d.). An introduction to Azure Functions. Azure Documentation. Retrieved September 5, 2025. The introductory paragraph states, "Azure Functions is a serverless solution that allows you to write less code, maintain less infrastructure, and save on costs."
- Azure IoT Hub: Microsoft. (n.d.). What is Azure IoT Hub? Azure Documentation. Retrieved September 5, 2025. The "Overview" section notes, "Azure IoT Hub is a managed service...that acts as a central message hub for bi-directional communication between your IoT application and the devices it manages," and the "Scale your solution" subsection mentions its capability to "scale to millions of simultaneously connected devices."

Question: 23

Your company has several business units. Each business unit requires 20 different Azure resources for daily operation. All the business units require the same type of Azure resources. You need to recommend a solution to automate the creation of the Azure resources. What should you include in the recommendations?

- A. Azure Resource Manager templates
- B. virtual machine scale sets
- C. the Azure API Management service
- D. management groups

Answer:

A

Explanation:

Azure Resource Manager (ARM) templates are the primary tool for implementing Infrastructure as Code (IaC) in Azure. They are JSON or Bicep files that declaratively define a set of resources, their properties, and dependencies. Using a single ARM template, the company can automate the creation of the required 20 different resources consistently and repeatedly for each business unit. This ensures that every deployment is identical, reducing manual effort and the potential for configuration errors, which directly addresses the scenario's requirement for an automated solution.

Why Incorrect Options are Wrong:

- B. virtual machine scale sets: This service is used specifically to create and manage a group of identical, load-balanced virtual machines, not a diverse set of 20 different resource types.
- C. the Azure API Management service: This is a platform for publishing, securing, and analyzing APIs. It does not provision underlying infrastructure resources like virtual networks or storage accounts.
- D. management groups: These are containers for managing access, policy, and compliance across multiple subscriptions. They are a governance tool, not a resource deployment automation tool.

References:

1. Microsoft Learn: "What are ARM templates?". This document states, "To implement infrastructure as code for your Azure solutions, use Azure Resource Manager templates (ARM templates). The template is a JavaScript Object Notation (JSON) file that defines the infrastructure and configuration for your project... It enables you to repeatedly deploy your solution... and have confidence your resources are deployed in a consistent state."

2. Microsoft Learn: "What are virtual machine scale sets?". Under the "Why use virtual machine scale sets?" section, it clarifies, "Scale sets allow you to create and manage a group of load balanced VMs." This highlights its specific use case for VMs.
3. Microsoft Learn: "What are Azure management groups?". This document explains, "Azure management groups provide a level of scope above subscriptions. You organize subscriptions into containers called 'management groups' and apply your governance conditions to the management groups."
4. Microsoft Learn: "About API Management". The overview states, "Azure API Management is a hybrid, multicloud management platform for APIs across all environments... Use API Management to... publish APIs to external, partner, and internal developers to unlock the potential of their data and services."

Question: 24

DRAG DROP Match the Azure service to the correct definition. Instructions: To answer, drag the appropriate Azure service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct selection is worth one point.

Answer Options	Answer Area
Azure Databricks	Provides the platform for serverless code
Azure Functions	A big data analysis service for machine learning
Azure App Service	Detects and diagnoses anomalies in web apps
Azure Application Insights	Hosts web app

Answer:

Azure Functions: Provides the platform for serverless code

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Azure Databricks: A big data analysis service for machine learning

Azure Application Insights: Detects and diagnoses anomalies in web apps

Azure App Service: Hosts web app

Explanation:

Azure Functions is an event-driven, serverless compute platform that allows you to run small pieces of code without managing the underlying infrastructure. This makes it the platform for serverless code.

Azure Databricks is an Apache Spark-based analytics platform optimized for the Azure cloud. It is widely used for big data analytics, data engineering, and machine learning workloads.

Azure Application Insights, a feature of Azure Monitor, is an Application Performance Management (APM) service. It monitors live web applications to detect performance anomalies and provides analytics tools to help diagnose issues.

Azure App Service is a fully managed Platform-as-a-Service (PaaS) for building, deploying, and

scaling web apps and APIs. Its primary function is to host web applications.

References:

Azure Functions: Microsoft Learn. (n.d.). Introduction to Azure Functions. "Azure Functions is a serverless solution that allows you to write less code, maintain less infrastructure, and save on costs." Retrieved from

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-overview>.

Azure Databricks: Microsoft Learn. (n.d.). What is Azure Databricks?. "Azure Databricks is a unified, open analytics platform for building, deploying, sharing, and maintaining enterprise-grade data, analytics, and AI solutions at scale... It is a big data analysis service for machine learning." Retrieved from <https://learn.microsoft.com/en-us/azure/databricks/introduction/>.

Azure Application Insights: Microsoft Learn. (n.d.). What is Application Insights?. "Application Insights, a feature of Azure Monitor, is an extensible Application Performance Management (APM) service... It will automatically detect performance anomalies." Retrieved from
<https://learn.microsoft.com/en-us/azure/azure-monitor/app/app-insights-overview>.

Azure App Service: Microsoft Learn. (n.d.). App Service overview. "Azure App Service is an HTTP-based service for hosting web applications, REST APIs, and mobile back ends." Retrieved from <https://learn.microsoft.com/en-us/azure/app-service/overview>.

Question: 25

HOTSPOT You plan to deploy a critical line-of-business application to Azure. The application will run on an Azure virtual machine. You need to recommend a deployment solution for the application. The solution must provide a guaranteed availability of 99.99 percent. What is the minimum number of virtual machines and the minimum number of availability zones you should recommend for the deployment? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Minimum number of virtual machines:

1	<input checked="" type="checkbox"/>
2	<input type="checkbox"/>
3	<input type="checkbox"/>
	<input type="checkbox"/>

Minimum number of availability zones:

1	<input checked="" type="checkbox"/>
2	<input type="checkbox"/>
3	<input type="checkbox"/>
	<input type="checkbox"/>

Answer:

Minimum number of virtual machines: 2

Minimum number of availability zones: 2

Explanation:

To achieve a guaranteed availability Service Level Agreement (SLA) of 99.99% for Azure Virtual Machines, the deployment must be resilient to datacenter-level failures. According to the official Microsoft Azure SLA, this level of availability is provided for "all Virtual Machines that have two or more instances deployed across two or more Availability Zones in the same Azure region." Availability Zones are physically separate locations within a region, each with independent power, cooling, and networking. Therefore, the minimum configuration to meet the 99.99% SLA

requirement is deploying at least two virtual machines, each in a different Availability Zone.

References:

1. Microsoft Azure. "SLA for Virtual Machines." Microsoft Azure Legal Information, Version 1.9. Retrieved from <https://azure.microsoft.com/en-us/support/legal/sla/virtual-machines/v19/>. Reference Point: Under the "Details" section, the document explicitly states: "For all Virtual Machines that have two or more instances deployed across two or more Availability Zones in the same Azure region, we guarantee you will have Virtual Machine Connectivity to at least one instance at least 99.99% of the time."

2. Microsoft Learn. "Describe availability options for Azure Virtual Machines." AZ-900: Describe core Azure concepts. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-core-azure-concepts/5-describe-availability-options>.

Reference Point: The "Availability zones" section explains that they are "physically separate datacenters within an Azure region" and are used to run mission-critical applications to achieve high availability, explicitly mentioning the 99.99% SLA for VMs when used.

Question: 26

Which Azure service should you use to correlate events from multiple resources into a centralized repository?

- A. Azure Event Hubs
- B. Azure Analysis Services
- C. Azure Monitor
- D. Azure Log Analytics

Answer:

D

Explanation:

Azure Log Analytics is the primary service within Azure Monitor for collecting, correlating, and analyzing log and performance data from various Azure resources, on-premises machines, and other clouds. It provides a centralized repository, known as a Log Analytics workspace, where data is aggregated. You can then use the powerful Kusto Query Language (KQL) to run complex queries to correlate events across multiple sources, identify trends, and analyze patterns. This directly addresses the need to correlate events from multiple resources in a centralized location.

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Why Incorrect Options are Wrong:

- A. Azure Event Hubs: This is a big data streaming and event ingestion service. It acts as a pipeline to receive events but does not provide the native tools for long-term storage, correlation, and analysis required by the question.
- B. Azure Analysis Services: This is a Platform-as-a-Service (PaaS) for building enterprise-grade business intelligence (BI) data models. It is used for semantic modeling and BI, not for correlating raw operational event data.
- C. Azure Monitor: While Azure Log Analytics is a feature of Azure Monitor, Azure Monitor is the broader, overarching monitoring service. Azure Log Analytics is the specific component that provides the centralized repository (workspace) and query engine for event correlation. Therefore, Log Analytics is the more precise answer.

References:

1. Microsoft Documentation Azure Monitor. "Overview of Azure Monitor." Azure Monitor is a comprehensive solution for collecting, analyzing, and acting on telemetry from your cloud and on-premises environments. It helps you understand how your applications are performing and proactively identifies issues affecting them and the resources they depend on. Azure Monitor Logs, which includes Log Analytics, is a feature of Azure Monitor that collects and organizes log and performance data.

2. Microsoft Documentation Azure Monitor. "Overview of Log Analytics in Azure Monitor." States, "Log Analytics is a tool in the Azure portal to edit and run log queries from data collected by Azure Monitor Logs and interactively analyze their results... A Log Analytics workspace is a unique environment for log data from Azure Monitor and other Azure services..." This confirms its role as the centralized repository and analysis tool.
3. Microsoft Documentation Azure Event Hubs. "What is Azure Event Hubs?" Describes Event Hubs as "a big data streaming platform and event ingestion service. It can receive and process millions of events per second." This highlights its function as an ingestion pipeline, not an analysis and correlation repository.
4. Microsoft Documentation Azure Analysis Services. "What is Azure Analysis Services?" Defines the service as providing "enterprise-grade data models in the cloud." This clearly positions it as a BI and data modeling tool, distinct from operational event correlation.

Question: 27

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your Azure environment contains multiple Azure virtual machines. You need to ensure that a virtual machine named VM1 is accessible from the Internet over HTTP. Solution: You modify a DDoS protection plan. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The objective is to make a virtual machine (VM) accessible over the Internet via HTTP, which typically uses TCP port 80. This requires a network traffic filtering rule. The correct Azure service for this task is a Network Security Group (NSG). An NSG allows you to create inbound security rules to permit traffic from specific sources to specific ports and protocols.

An Azure DDoS Protection plan is a security service designed to mitigate the impact of large-scale Distributed Denial of Service attacks. It protects resources from volumetric and protocol-level attacks but does not configure or manage inbound traffic rules for specific ports like HTTP. Therefore, modifying a DDoS plan will not achieve the goal.

Why Incorrect Options are Wrong:

A. Yes: This is incorrect. A DDoS Protection plan's function is to protect against network-based attacks, not to configure inbound port rules required for services like HTTP.

References:

1. Microsoft Learn, "Network security groups overview." This document states, "A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources." It further explains that rules can be defined by source, destination, port, and protocol, which is what is required to allow HTTP traffic. Source: <https://learn.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview>, Section: "Security rules".
2. Microsoft Learn, "What is Azure DDoS Protection?" This document clarifies the service's purpose: "Azure DDoS Protection... provides defense against DDoS attacks... by scrubbing traffic at the Azure network edge before it can impact your service's availability." This confirms its role is

attack mitigation, not traffic filtering configuration.

Source: <https://learn.microsoft.com/en-us/azure/ddos-protection/ddos-protection-overview>,

Section: "About Azure DDoS Protection".

3. Microsoft Learn, AZ-900 Training Module, "Describe network security groups." This courseware specifies, "Network security groups... enable you to filter network traffic to and from Azure resources within an Azure virtual network... by source and destination IP address, port, and protocol." This directly aligns with the task of allowing HTTP access.

Source: <https://learn.microsoft.com/en-us/training/modules/describe-azure-network-security-groups/2-describe-network-security-groups>, Paragraph 2.

Question: 28

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your Azure environment contains multiple Azure virtual machines. You need to ensure that a virtual machine named VM1 is accessible from the Internet over HTTP. Solution: You modify an Azure firewall. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The proposed solution meets the goal. Azure Firewall is a managed, cloud-based network security service that protects Azure Virtual Network resources. One of its key features is Destination Network Address Translation (DNAT). By configuring a DNAT rule on the Azure Firewall, you can translate inbound traffic destined for the firewall's public IP address on a specific port (in this case, HTTP port 80) to the private IP address and port of the virtual machine (VM1). This is a standard and effective method for allowing controlled access to internal resources from the internet.

Why Incorrect Options are Wrong:

- B. This option is incorrect. Modifying an Azure Firewall by adding a DNAT rule is a valid and intended method for allowing inbound internet traffic to a specific virtual machine.

References:

1. Microsoft Learn. "What is Azure Firewall?". Azure Documentation. Under the "Features" section, it lists "Destination Network Address Translation (DNAT)" and describes its function for inbound traffic.
2. Microsoft Learn. "Filter inbound Internet traffic with Azure Firewall DNAT". Azure Documentation. This tutorial explicitly states, "You can configure Azure Firewall Destination Network Address Translation (DNAT) to translate and filter inbound Internet traffic to your subnets."
3. Microsoft Learn. "AZ-900: Describe Azure network security groups". Azure Fundamentals: Describe Azure security, privacy, and governance. This module contrasts NSGs with Azure Firewall, noting that Azure Firewall provides more advanced features like DNAT for centralized

inbound protection for virtual networks.

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Question: 29

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your Azure environment contains multiple Azure virtual machines. You need to ensure that a virtual machine named VM1 is accessible from the Internet over HTTP. Solution: You modify an Azure Traffic Manager profile. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The proposed solution does not meet the goal. Azure Traffic Manager is a DNS-based traffic load balancer that distributes traffic to public-facing applications across different endpoints. It operates at the DNS layer to route client requests to the most appropriate endpoint but does not control network access to the virtual machine itself. To make a virtual machine accessible over HTTP, you must configure a Network Security Group (NSG) with an inbound security rule to allow traffic on the required port (typically TCP port 80 for HTTP). Modifying a Traffic Manager profile will not create or alter the necessary NSG rule.

Why Incorrect Options are Wrong:

A. Yes: This is incorrect because Traffic Manager is a traffic-routing service, not a network firewall service. It cannot be used to open ports or allow specific types of network traffic to a virtual machine.

References:

1. Microsoft Learn, "What is Traffic Manager?": "Azure Traffic Manager is a DNS-based traffic load balancer. This service allows you to distribute traffic to your public facing applications across the global Azure regions... Traffic Manager uses DNS to direct client requests to the most appropriate service endpoint based on a traffic-routing method and the health of the endpoints." This source confirms Traffic Manager's function at the DNS layer, not the network security layer.
2. Microsoft Learn, "Network security groups": "You can use an Azure network security group to filter network traffic between Azure resources in an Azure virtual network. A network security group contains security rules that allow or deny inbound network traffic to, or outbound network

traffic from, several types of Azure resources." This source identifies NSGs as the correct tool for allowing or denying inbound traffic.

3. Microsoft Learn, "Tutorial: Filter network traffic with a network security group using the Azure portal": Under the "Create an inbound security rule" section, the document details the exact steps required to allow inbound web traffic on port 80 to a virtual machine, demonstrating that an NSG, not Traffic Manager, is the required component.

Question: 30

Which two types of customers are eligible to use Azure Government to develop a cloud solution? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. a Canadian government contractor
- B. a European government contractor
- C. a United States government entity
- D. a United States government contractor
- E. a European government entity

Answer:

C, D

Explanation:

Azure Government is a dedicated, physically isolated instance of Microsoft Azure designed to meet the stringent security and compliance requirements of United States government agencies. Eligibility is strictly limited to US federal, state, local, and tribal government entities. Additionally, partners and contractors who handle data that is subject to US government regulations and requirements are also eligible, provided they are sponsored by a government entity. This ensures that the environment is exclusively used by organizations serving the US public sector.

Why Incorrect Options are Wrong:

- A. a Canadian government contractor: Azure Government is exclusively for United States government entities and their contractors, not those of other nations.
- B. a European government contractor: Eligibility is restricted to the United States public sector and its partners, excluding European government contractors.
- E. a European government entity: Azure Government services are not available to foreign government entities, including those from Europe.

References:

1. Microsoft Learn. (2024). What is Azure Government? Under the section "Who is eligible?", the documentation explicitly states, "Azure Government is available to the following types of customers: US government entity... US government contractor."
Source: <https://learn.microsoft.com/en-us/azure/azure-government/documentation-government-welcome#who-is-eligible>
2. Microsoft Trust Center. (2024). Azure Government. In the overview, it describes the service as being "for US government agencies and their partners." This confirms that both government

entities and their contractors are the intended customers.

Source: <https://www.microsoft.com/en-us/trust-center/compliance/azure-government> (Paragraph 1)

Question: 31

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

Statements	Yes	No
To implement an Azure Multi-Factor Authentication (MFA) solution, you must deploy a federation solution or sync on-premises identities to the cloud.	<input type="radio"/>	<input type="radio"/>
Two valid methods for Azure Multi-Factor Authentication (MFA) are picture identification and a passport number.	<input type="radio"/>	<input type="radio"/>
Azure Multi-Factor Authentication (MFA) can be required for administrative and non-administrative user accounts.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

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Explanation:

Azure Multi-Factor Authentication can be enabled for cloud-only identities, which are created and managed exclusively within Microsoft Entra ID. While federation and identity synchronization are options for integrating on-premises directories (hybrid identities), they are not prerequisites for implementing MFA. An organization can use Azure MFA with user accounts that have no connection to an on-premises environment.

Picture identification and passport numbers are forms of identity proofing but are not valid technical methods for Azure MFA. Supported verification methods include the Microsoft Authenticator app (push notifications, verification codes), FIDO2 security keys, OATH hardware/software tokens, SMS text messages, and voice calls. These methods provide a secondary factor of authentication that the user possesses or has access to.

Azure MFA is a flexible security feature that can be enforced for any user account in a Microsoft Entra ID tenant. It is a security best practice to require MFA for all users, especially those with administrative privileges (e.g., Global Administrator) to protect sensitive resources. Enforcement is typically managed through Microsoft Entra Conditional Access policies, which can target specific users, groups, or roles.

References:

Microsoft Entra Documentation. "Authentication and synchronization." This document outlines the different identity models, including cloud-only, clarifying that synchronization is for hybrid scenarios.

Microsoft Learn. "Authentication methods and features." Microsoft Entra ID, Microsoft Docs. This page provides a definitive list of the available authentication methods for MFA. Section: "Method, Strengths, and Weaknesses" table explicitly lists supported methods like Microsoft Authenticator, FIDO2 keys, and SMS, and does not include identity documents.

Microsoft Learn. "Tutorial: Secure user sign-in events with Microsoft Entra multifactor authentication." Microsoft Entra ID, Microsoft Docs. This tutorial explicitly states, "You can enable Microsoft Entra multifactor authentication to secure user sign-in events. To simplify the user experience, you can enable passwordless authentication methods..." It demonstrates applying MFA to users regardless of their administrative status.

Question: 32

You need to ensure that when Azure Active Directory (Azure AD) users connect to Azure AD from the Internet by using an anonymous IP address, the users are prompted automatically to change their password. Which Azure service should you use?

- A. Azure AD Connect Health
- B. Azure AD Privileged Identity Management
- C. Azure Advanced Threat Protection (ATP)
- D. Azure AD Identity Protection

Answer:

D

Explanation:

Azure AD Identity Protection is the service designed to detect and remediate identity-based risks. It uses signals, including sign-ins from anonymous IP addresses, to identify potentially compromised accounts. Administrators can configure risk-based policies within Identity Protection to automatically respond to specific risk levels. A common automated remediation action is to challenge the user with Multi-Factor Authentication (MFA) or force a password reset, which directly addresses the requirement in the question.

Why Incorrect Options are Wrong:

- A. Azure AD Connect Health: This service monitors the health of on-premises identity infrastructure (e.g., AD FS, Azure AD Connect servers), not user sign-in risks in the cloud.
- B. Azure AD Privileged Identity Management: This service manages, controls, and monitors access for privileged accounts using just-in-time (JIT) access, not for enforcing policies on standard user sign-ins.
- C. Azure Advanced Threat Protection (ATP): Now called Microsoft Defender for Identity, this service focuses on detecting and investigating threats related to on-premises Active Directory, not cloud-based Azure AD sign-in events.

References:

1. Microsoft Learn: "What is Identity Protection?". This document explicitly states that Identity Protection detects various sign-in risks, including "Anonymous IP address," and can be configured with a "Sign-in risk policy" to enforce remediation actions like requiring a password change. (See sections: "What risks does Identity Protection detect?" and "Risk policies").
2. Microsoft Learn: "How To: Configure and enable risk policies". This guide details the configuration steps, stating, "Azure AD Identity Protection provides organizations with two default

policies... The sign-in risk policy... can enforce self-service password reset for users." (See section: "Sign-in risk policy").

3. Microsoft Learn: "What is Azure AD Connect Health?". This document clarifies the service's purpose: "Azure Active Directory (Azure AD) Connect Health provides robust monitoring of your on-premises identity infrastructure." (See section: "What is Azure AD Connect Health?").

4. Microsoft Learn: "What is Azure AD Privileged Identity Management?". This source defines PIM's role: "Privileged Identity Management (PIM) is a service in Azure Active Directory (Azure AD) that enables you to manage, control, and monitor access to important resources..." (See section: "What does it do?").

Question: 33

DRAG DROP Match the term to the correct definition. Instructions: To answer, drag the appropriate term from the column on the left to its description on the right. Each term may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Azure Government		An organization that defines international standards across all industries.
GDPR		An organization that defines standards used by the United States government.
ISO		A European policy that regulates data privacy and data protection.
NIST		A dedicated public cloud for federal and state agencies in the United States.

Answer:

Azure Government: A dedicated public cloud for federal and state agencies in the United States.

GDPR: A European policy that regulates data privacy and data protection.

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ISO: An organization that defines international standards across all industries.

NIST: An organization that defines standards used by the United States government.

Explanation:

This question tests knowledge of key compliance, standards, and cloud service offerings.

- The International Organization for Standardization (ISO) is a global body that develops and publishes proprietary, industrial, and commercial standards.
- The National Institute of Standards and Technology (NIST) is a non-regulatory agency of the United States Department of Commerce that develops technology, metrics, and standards for the U.S. government.
- The General Data Protection Regulation (GDPR) is a landmark data protection and privacy regulation enacted by the European Union.
- Azure Government is a specialized version of the Microsoft Azure cloud platform, physically isolated and designed to meet the specific security and compliance requirements of United States

government agencies.

References:

- ISO: International Organization for Standardization. (n.d.). About us. ISO. Retrieved from <https://www.iso.org/about-us.html>. The official website states, "We are an independent, non-governmental international organization...We develop and publish International Standards."
- NIST: National Institute of Standards and Technology. (n.d.). About NIST. NIST. Retrieved from <https://www.nist.gov/about-nist>. The "About NIST" page describes its role as a U.S. federal agency developing "measurement science, standards, and technology."
- GDPR: The European Parliament and the Council of the European Union. (2016, April 27). Regulation (EU) 2016/679. Official Journal of the European Union. Retrieved from <https://eur-lex.europa.eu/eli/reg/2016/679/oj>. Article 1 of the regulation explicitly states its purpose is to lay down rules for the protection of personal data.
- Azure Government: Microsoft. (n.d.). What is Azure Government? Microsoft Docs. Retrieved from <https://docs.microsoft.com/en-us/azure/azure-government/documentation-government-welcome>. The official documentation defines Azure Government as a "mission-critical cloud, delivering breakthrough innovation to US government customers and their partners."

Question: 34

Your company plans to deploy several web servers and several database servers to Azure. You need to recommend an Azure solution to limit the types of connections from the web servers to the database servers. What should you include in the recommendation?

- A. network security groups (NSGs)
- B. Azure Service Bus
- C. a local network gateway
- D. a route filter

Answer:

A

Explanation:

A network security group (NSG) is the correct Azure service for this requirement. NSGs operate at layers 3 and 4 of the OSI model and are used to filter network traffic to and from Azure resources within an Azure virtual network. You can create specific inbound security rules for the NSG associated with the database servers' subnet or network interfaces. These rules would explicitly allow traffic only from the web servers' source IP addresses on the required database ports (e.g., TCP port 1433 for SQL Server), while a default deny rule blocks all other traffic. This directly achieves the goal of limiting the types of connections.

Why Incorrect Options are Wrong:

- B. Azure Service Bus: This is a messaging service used to decouple applications and services; it does not filter network traffic at the IP and port level.
- C. a local network gateway: This is a component used in hybrid networking (VPN/ExpressRoute) to represent your on-premises network, not for filtering traffic within Azure.
- D. a route filter: This is used with Azure ExpressRoute to control the advertising of BGP routes; it does not filter traffic between servers.

References:

1. Microsoft Learn. (2023). Describe Azure network security groups. AZ-900: Describe Azure networking services learning path. "You can use an Azure network security group to filter network traffic between Azure resources in an Azure virtual network." Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-network-security-groups/2-describe-network-security-groups> (Section: "Describe network security groups").
2. Microsoft Learn. (2023). Network security groups overview. Azure Virtual Network documentation. "A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources. For each

rule, you can specify source and destination, port, and protocol." Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview> (Section: "Introduction").

3. Microsoft Learn. (2023). How network security groups filter network traffic. Azure Virtual Network documentation. "You can associate a network security group to a subnet of a virtual network and/or a network interface in a virtual machine." Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/network-security-group-how-it-works> (Section: "Virtual network resources you can associate a network security group to").

Question: 35

To what should an application connect to retrieve security tokens?

- A. an Azure Storage account
- B. Azure Active Directory (Azure AD)
- C. a certificate store
- D. an Azure key vault

Answer:

B

Explanation:

Azure Active in Directory (Azure AD) is Microsoft's cloud-based identity and access management service. Its core function is to act as an identity provider. When an application needs to access a protected resource, it authenticates with Azure AD. Upon successful authentication, Azure AD issues a security token (e.g., a JSON Web Token - JWT). The application then presents this token to the resource to prove its identity and gain authorized access. This process is fundamental to modern authentication protocols like OAuth 2.0 and OpenID Connect, which are orchestrated by Azure AD.

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Why Incorrect Options are Wrong:

- A. an Azure Storage account: This service is used for storing data objects like blobs, files, and queues, not for issuing identity tokens.
- C. a certificate store: A certificate store is a repository for digital certificates. While certificates can be used as credentials, the store itself does not issue security tokens.
- D. an Azure key vault: This service is designed to securely store and manage secrets, keys, and certificates. It is not an identity provider and does not issue security tokens.

References:

1. Microsoft Learn, Azure Active Directory Documentation. "What is Azure Active Directory?". This document establishes Azure AD as the primary identity and access management service. It states, "Azure Active Directory (Azure AD)... is a cloud-based identity and access management service. Azure AD helps your employees sign in and access resources..."
2. Microsoft Learn, Microsoft identity platform documentation. "Microsoft identity platform access tokens". This document explicitly states that the Microsoft identity platform (which is part of Azure AD) issues tokens. Under the "Access tokens" section, it says, "Access tokens enable clients to securely call protected web APIs. Access tokens are security tokens issued by an authorization server..."
3. Microsoft Learn, Azure Key Vault Documentation. "What is Azure Key Vault?". This source

defines the purpose of Key Vault, clarifying it is for storing secrets, not issuing identity tokens. It states, "Azure Key Vault is a cloud service for securely storing and accessing secrets."

4. Microsoft Learn, Azure Storage Documentation. "Introduction to Azure Storage". This document outlines the function of Azure Storage, confirming it is a data storage solution. It describes the service as providing "highly available, massively scalable, durable, and secure storage for a variety of data objects in the cloud."

Question: 36

This question requires that you evaluate the underlined text to determine if it is correct. Resource groups provide organizations with the ability to manage the compliance of Azure resources across multiple subscriptions. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. Management groups
- C. Azure policies
- D. Azure App Service plans

Answer:

C

Explanation:

Azure Policy is the service used to create, assign, and manage policies that enforce rules and effects over your resources to ensure they remain compliant with corporate standards and service-level agreements. Policies can be applied at various scopes, including a management group, which allows an organization to manage compliance consistently across multiple subscriptions. Resource groups, by contrast, are containers for resources within a single subscription and do not have a multi-subscription scope.

Why Incorrect Options are Wrong:

- A. No change is needed: Resource groups are scoped to a single subscription and cannot be used to manage compliance across multiple subscriptions.
- B. Management groups: Management groups provide a scope above subscriptions to which policies can be applied, but they are not the policies themselves that manage compliance.
- D. Azure App Service plans: An App Service plan is a specific compute resource for hosting web applications and is unrelated to managing compliance across an organization.

References:

1. Microsoft Learn: "What is Azure Policy?". Microsoft Docs. "Azure Policy is a service in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant... You can apply policies at different scopes within Azure, such as management groups, subscriptions, resource groups..."
2. Microsoft Learn: "Azure fundamental concepts". Microsoft Docs. Under the section "Azure resource organization," it states, "A resource group is a logical container for resources deployed

on Azure... All resources must be in a resource group and a resource can only be a member of a single resource group." This confirms the single-subscription scope of a resource group.

3. Microsoft Learn: "Organize your resources with Azure management groups". Microsoft Docs. "Azure management groups provide a level of scope above subscriptions. You organize subscriptions into containers called management groups and apply your governance conditions to the management groups." This clarifies that management groups are a scoping tool for applying governance like Azure Policy.

Question: 37

Your network contains an Active Directory forest. The forest contains 5,000 user accounts. Your company plans to migrate all network resources to Azure and to decommission the on-premises data center. You need to recommend a solution to minimize the impact on users after the planned migration. What should you recommend?

- A. Implement Azure Multi-Factor Authentication (MFA)
- B. Sync all the Active Directory user accounts to Azure Active Directory (Azure AD)
- C. Instruct all users to change their password
- D. Create a guest user account in Azure Active Directory (Azure AD) for each user

Answer:

B

Explanation:

To minimize the impact on users during a migration from an on-premises data center to Azure, the primary goal is to maintain a consistent identity and access experience. Synchronizing the on-premises Active Directory (AD) user accounts to Azure Active Directory (Azure AD) using a tool like Azure AD Connect achieves this. This process replicates user identities, including usernames and password hashes, to the cloud. As a result, users can continue to sign in to the new Azure-based resources with their existing, familiar corporate credentials, ensuring a seamless transition and minimal disruption to their daily workflows.

Why Incorrect Options are Wrong:

- A. Implement Azure Multi-Factor Authentication (MFA): MFA is a security enhancement, not an identity migration strategy. Implementing it would add a new step to the sign-in process, thereby increasing, not minimizing, the impact on users.
- C. Instruct all users to change their password: This action would be highly disruptive and does not solve the fundamental problem of the user accounts not existing in Azure AD. It creates unnecessary work for all users.
- D. Create a guest user account in Azure Active Directory (Azure AD) for each user: Guest accounts are intended for external collaborators (B2B), not for migrating an organization's internal employees. This approach is improper and would lead to management and permissions complications.

References:

1. Microsoft Learn. "What is Azure AD Connect?" Microsoft Entra Documentation. This document states, "Azure AD Connect is the Microsoft tool designed to meet and accomplish your hybrid identity goals... It provides the following features: ... Password hash synchronization - A sign-in method that synchronizes a hash of a users on-premises AD password with Azure AD. ... This allows users to use the same password on-premises and in the cloud."
2. Microsoft Learn. "Integrate your on-premises directories with Azure Active Directory." Microsoft Entra Documentation. Under the section "Connect your on-premises directories to Azure," it explains that integrating on-premises directories with Azure AD makes users more productive by providing a common identity for accessing both cloud and on-premises resources. This directly supports the goal of minimizing user impact.
3. Microsoft Learn. "What is Azure AD B2B collaboration?" Microsoft Entra Documentation. This source clarifies that "Azure Active Directory (Azure AD) B2B collaboration is a feature... that lets you invite guest users to collaborate with your organization." This confirms that guest accounts are for external users, making option D incorrect.

Question: 38

HOTSPOT You create a resource group named RG1 in Azure Resource Manager. You need to prevent the deletion of the resources in RG1. Which setting should you use? To answer, select the appropriate setting in the answer area.



RG1

Resource group

<<

Search (Ctrl + /)

Overview

Activity log

Access control (IAM)

Tags

Events

Settings

Quickstart

Resource costs

Deployments

Policies

Properties

Locks

Automation script

Monitoring

Answer:

Locks

Explanation:

Azure Resource Locks are a feature specifically designed to protect resources from accidental deletion or modification. To prevent the deletion of resources within the RG1 resource group, you would apply a CanNotDelete lock. This type of lock allows authorized users to read and modify the resources but explicitly prevents them from being deleted. Applying the lock at the resource group level ensures that all resources contained within it inherit the lock, fulfilling the requirement. This is the most direct and precise method for preventing resource deletion in Azure.

References:

1. Microsoft Learn. (2024). Lock resources to prevent unexpected changes. "As an administrator, you may need to lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources. You can set the lock level to CanNotDelete or ReadOnly."
2. Microsoft Learn. (2024). AZ-900: Describe Azure management and governance - Describe the purpose of resource locks. "Resource locks are a setting that you can apply to any resource to block modification or deletion. You can set the lock level to CanNotDelete or ReadOnly."
3. Microsoft Learn. (2024). AZ-900 part 3: Describe Azure management and governance - Resource locks. "Resource locks help you prevent accidental deletion or modification of your Azure resources... When you apply a lock at a parent scope, all resources within that scope inherit the same lock."

Question: 39

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company plans to purchase Azure. The company's support policy states that the Azure environment must provide an option to access support engineers by phone or email. You need to recommend which support plan meets the support policy requirement. Solution: Recommend a Basic support plan. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The Basic support plan does not meet the company's requirement. The Basic plan is included with all Azure subscriptions and provides support only for billing and subscription management issues. It does not offer access to technical support engineers via phone or email. To gain access to technical support, the company would need to subscribe to at least the Developer plan (for email support) or the Standard, Professional Direct, or Enterprise plans (for both phone and email support). Therefore, recommending the Basic plan fails to meet the stated goal.

Why Incorrect Options are Wrong:

- A. Yes: This is incorrect. The Basic support plan explicitly excludes access to technical support engineers, which is the core requirement of the support policy.

References:

1. Microsoft Azure. (n.d.). Compare Azure support plans. Retrieved from <https://azure.microsoft.com/en-us/support/plans/>.

Reference Details: Under the "Compare support plan features" table, the "Technical Support" section shows that the Basic plan does not provide 24x7 access to support engineers via email and phone, whereas the Standard, Professional Direct, and Enterprise plans do. The Developer plan offers email support during business hours.

2. Microsoft Learn. (2023). Describe Azure pricing and support. MS-900: Microsoft 365 Fundamentals.

Reference Details: In the "Describe support options for Microsoft Azure services" section, the documentation outlines that the Basic Support plan is limited to billing and subscription support

and does not include technical support.

3. Microsoft Learn. (2024). AZ-900: Describe Azure pricing and support. Azure Fundamentals.

Reference Details: The module "Describe Azure cost management and service level agreements" details the features of each support plan. It specifies that the Basic plan offers no technical support, while higher-tier plans like Standard and Professional Direct provide 24/7 technical support via phone and email.

Question: 40

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company plans to purchase Azure. The company's support policy states that the Azure environment must provide an option to access support engineers by phone or email. You need to recommend which support plan meets the support policy requirement. Solution: Recommend a Standard support plan. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The Azure Standard support plan provides 24/7 access to support engineers via both phone and email for technical issues. This plan is designed for production workload environments and directly meets the company's policy requirement for having phone or email access to support. The Basic plan offers no technical support, and the Developer plan only offers email support during business hours. Therefore, recommending the Standard plan is a correct and valid solution to meet the stated goal.

Why Incorrect Options are Wrong:

- B. No: This option is incorrect because the Azure Standard support plan explicitly includes 24/7 technical support via phone and email, which directly fulfills the requirement outlined in the company's support policy.

References:

1. Microsoft Learn, "Compare Azure support plans." The feature comparison table under the "Technical support" section clearly indicates that the Standard plan includes "24/7 access to support engineers" via "Phone and email."

Source: Microsoft Azure Official Documentation. Navigate to the table comparing features across Basic, Developer, Standard, Professional Direct, and Unified plans.

2. Microsoft Learn, "Describe Azure support options" (Part of AZ-900 learning path). This module details the offerings of each support plan. It states, "The Standard plan offers 24x7 access to support engineers via phone and email."

Source: Microsoft Learn, AZ-900: Azure Fundamentals, Module: "Describe Azure cost management and Service Level Agreements," Unit 5: "Describe Azure support options."

3. Microsoft Azure, "Azure Support Plans." The official Azure support page describes the Standard plan as suitable for "production workloads" and lists "24x7 technical support" as a key feature, specifying phone and email as the contact methods.

Source: Microsoft Azure Website, Support section, "Plans and pricing" page.

Question: 41

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company plans to purchase Azure. The company's support policy states that the Azure environment must provide an option to access support engineers by phone or email. You need to recommend which support plan meets the support policy requirement. Solution: Recommend a Premier support plan. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The Premier support plan, now part of Microsoft Unified Support, is a top-tier offering that provides comprehensive support services. It includes 24/7 access to Microsoft support engineers via phone and email for technical issues, which directly satisfies the company's stated policy requirement. While other plans like Standard and Professional Direct also offer this capability, the Premier plan is a valid solution that meets the goal.

Why Incorrect Options are Wrong:

B. No: This is incorrect. The Premier support plan includes all the support communication channels of the lower-tier plans, such as phone and email, and adds more extensive services.

References:

1. Microsoft Azure Documentation: "Azure support plans". Microsoft Docs. Accessed October 2023. The feature comparison table on this page clearly shows that the Standard, Professional Direct, and Premier (Unified) plans all offer 24/7 technical support via phone and email.
2. Microsoft Unified Support Documentation: "Microsoft Unified Support". Microsoft Enterprise. Accessed October 2023. This document details the services included in Unified Support (which has superseded Premier), confirming the availability of 24/7 problem resolution support, which encompasses phone and email access to engineers.

Question: 42

Your company plans to request an architectural review of an Azure environment from Microsoft. The company currently has a Basic support plan. You need to recommend a new support plan for the company. The solution must minimize costs. Which support plan should you recommend?

- A. Premier
- B. Developer
- C. Professional Direct
- D. Standard

Answer:

C

Explanation:

The company requires an architectural review while minimizing costs. The Azure Professional Direct support plan is the most cost-effective option that meets this specific need. According to official Microsoft documentation, architectural guidance, which includes design reviews and performance tuning, is a feature that begins at the Professional Direct tier. While the Premier (now part of Microsoft Unified Support) plan also offers these services, it is a higher-cost, enterprise-level offering. The Basic, Developer, and Standard plans do not include architectural support as a feature. Therefore, Professional Direct fulfills the requirement at the lowest possible cost compared to the other available options.

Why Incorrect Options are Wrong:

- A. Premier: Incorrect. While this plan includes comprehensive architectural reviews, it is not the most cost-effective solution as stipulated by the question's "minimize costs" constraint.
- B. Developer: Incorrect. This plan is designed for non-production and trial environments and does not offer architectural support for production workloads.
- D. Standard: Incorrect. This plan is intended for production environments but does not include the architectural guidance or design review services required by the company.

References:

1. Microsoft Documentation, Azure Support Plans. The official comparison table shows that "Architectural support" is provided under the "Proactive guidance" category. This feature is marked as available for "Professional Direct" and "Premier" but is not available for "Developer" or "Standard" plans.

Source: Microsoft Docs, "Azure support plans", Feature comparison table, "Proactive guidance" section.

2. Microsoft Learn, AZ-900: Describe Azure pricing and support. This learning path details the features of each support plan. The module explicitly states that architectural guidance is a key benefit of the Professional Direct plan, distinguishing it from the Standard plan.

Source: Microsoft Learn, "Compare Azure support options", Module: "Describe Azure cost management and Service Level Agreements".

3. Microsoft Documentation, Azure Professional Direct support. The dedicated page for this plan lists "Architectural guidance based on best practices delivered by a pool of ProDirect delivery managers" as a key feature.

Source: Microsoft Azure, "Professional Direct support", "Features" section.

Question: 43

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

Statements	Yes	No
Most Azure services are introduced in private preview before being introduced in public preview, and then in general availability.	<input type="radio"/>	<input type="radio"/>
Azure services in public preview can be managed only by using the Azure CLI.	<input type="radio"/>	<input type="radio"/>
The cost of an Azure service in private preview decreases when the service becomes generally available.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

No

Explanation:

Correct. The standard release cycle for new Azure features and services is Private Preview, followed by Public Preview, and finally General Availability (GA). This phased rollout allows Microsoft to gather feedback and ensure stability before a full production release.

Incorrect. Azure services in public preview are typically manageable through multiple interfaces, including the Azure Portal, Azure PowerShell, and SDKs, in addition to the Azure CLI. While some specific functionalities might initially appear only in the CLI, it is not the exclusive management tool for all preview services.

Incorrect. Services in private or public preview are often offered at a reduced cost or even for free to encourage adoption and testing. When a service becomes generally available, it is fully supported with a Service Level Agreement (SLA), and its price typically increases to reflect its production-ready status.

References:

Microsoft Azure Documentation, "Get started with Azure." This document outlines the service lifecycle, stating, "New services are often released first in private preview, then public preview, and then finally for general availability."

Microsoft Azure Documentation, "Preview features and how to enable them." This page details how to access preview features through various means, including the Azure Portal, not just the command-line interfaces.

Microsoft Azure Documentation, "Supplemental Terms of Use for Microsoft Azure Previews." This legal document explains the terms for preview services, noting, "Previews may be provided at a reduced cost or for free... We may change or discontinue the Previews at any time without notice. We also may choose not to release a Preview into 'General Availability.'" This implies that the GA pricing is distinct and typically not a decrease from the promotional preview pricing.

Question: 44

What is required to use Azure Cost Management?

- A. a Dev/Test subscription
- B. Software Assurance
- C. an Enterprise Agreement (EA)
- D. a pay-as-you-go subscription

Answer:

C

Explanation:

Azure Cost Management is currently supported for Azure Enterprise Agreement (EA) customers at no additional charge; an EA enrollment is the documented prerequisite for enabling and accessing the service's cost-analysis, budgeting, and optimisation features. Other subscription types (Dev/Test, Software Assurance-only benefits, or stand-alone Pay-As-You-Go) are not listed by Microsoft as supported billing scopes for Cost Management in the official prerequisite guidance.

Why Incorrect Options are Wrong:

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- A. Dev/Test subscription - Microsoft's prerequisite list does not include the MSDN/Dev-Test offer; Cost Management features are unavailable for that offer type.
- B. Software Assurance - SA is a licensing benefit, not a billing account type; it gives no native access to Azure Cost Management.
- D. Pay-As-You-Go subscription - Microsoft states Cost Management isn't supported for PAYG (Microsoft Online Subscription Program) subscriptions.

References:

1. Microsoft Docs - "Prerequisites for using Azure Cost Management (Enterprise Agreement customers)", para. 1-2,
<https://learn.microsoft.com/azure/cost-management-billing/costs/quick-cost-analysis>
2. Microsoft Docs - "Supported Microsoft Commerce billing accounts", Table 1 ("Enterprise Agreement: Supported; Pay-As-You-Go: Not supported"), section 'Supported billing scopes', <https://learn.microsoft.com/azure/cost-management-billing/costs/understand-cost-management-data>
3. Microsoft Docs - "Azure Cost Management + Billing frequently asked questions", FAQ: "Which subscription types are supported?",
<https://learn.microsoft.com/azure/cost-management-billing/costs/cost-mgt-faq>

Question: 45

This question requires that you evaluate the underlined text to determine if it is correct. Your Azure trial account expired last week. You are now unable to create additional Azure Active Directory (Azure AD) user accounts. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. start an existing Azure virtual machine
- C. access your data stored in Azure
- D. access the Azure portal

Answer:

B

Explanation:

When an Azure free trial subscription expires, it enters a 'Disabled' state. In this state, you can no longer create, manage, or run Azure resources that incur costs. Starting an existing virtual machine is an action that requires an active subscription with a valid payment method or available credits, both of which are absent after a trial expires. Therefore, you would be unable to perform this action. The Azure portal remains accessible to allow you to upgrade to a pay-as-you-go subscription, and the associated Azure Active Directory (Azure AD) tenant remains active for identity management tasks like creating users.

Why Incorrect Options are Wrong:

- A. No change is needed: This is incorrect. The expiration of a trial subscription does not disable the associated Azure AD tenant. You can still perform basic directory management tasks like adding users.
- C. access your data stored in Azure: This is incorrect. After a subscription is disabled, Microsoft retains the data for a grace period (typically 90 days) to allow you to reactivate the subscription and recover the data.
- D. access the Azure portal: This is incorrect. You must be able to access the Azure portal to manage your account and upgrade the expired trial subscription to a paid model.

References:

1. Microsoft Learn, Azure free account FAQ: Under the section "What happens after I use my free credits or 30 days is over?", the documentation states, "If you don't upgrade, your account and services will be disabled." Starting a VM is a service that would be disabled.
2. Microsoft Learn, Reactivate a disabled Azure subscription: This document clarifies the state of

resources: "When your subscription is disabled... Your virtual machines are stopped and deallocated... You can't create or manage Azure resources." This directly supports that you cannot start a VM.

3. Microsoft Learn, Subscriptions, licenses, accounts, and tenants for Microsoft's cloud offerings: This resource explains the distinction between an Azure subscription (for billing services) and an Azure AD tenant (for identity). The expiration of the former does not immediately disable the core functions of the latter, such as user creation.

Question: 46

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

Statements	Yes	No
An Azure service in private preview is released to all Azure customers.	<input type="radio"/>	<input type="radio"/>
An Azure service in public preview is released to all Azure customers.	<input type="radio"/>	<input type="radio"/>
An Azure service in general availability is released to a subset of Azure customers.	<input type="radio"/>	<input type="radio"/>

Answer:

An Azure service in private preview is released to all Azure customers. - No

An Azure service in public preview is released to all Azure customers. - Yes

An Azure service in general availability is released to a subset of Azure customers. - No

Explanation:

Azure services go through distinct release phases. A private preview is an invite-only phase for a specific subset of customers to provide early feedback. A public preview is available to all Azure customers, allowing anyone to evaluate the new features, though service level agreements (SLAs) might not apply. Finally, general availability (GA) signifies that the service is fully tested, supported, covered by SLAs, and released to all Azure customers for production use. Therefore, a private preview is not for all customers, a public preview is for all customers, and a GA release is also for all customers, not a subset.

References:

Microsoft Azure Documentation, "Get started with preview features in Azure". This document explicitly states, "When a feature is in private preview, you can only access it if your subscription is enabled for that feature." For public previews, it indicates they are available to all customers.

Microsoft Azure Documentation, "Azure updates". This page details the lifecycle of services. It defines Public Preview as a stage where a feature is available to all customers and General Availability as the stage where a service is available to all customers with full support.

Microsoft Learn, "Describe the service lifecycle in Azure". This module explains, "Features in private preview are available to specific Azure customers for evaluation purposes... Features in public preview are available to all Azure customers." It further clarifies that General Availability (GA) is the final stage when a feature is released to all customers.

Question: 47

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

Statements	Yes	No
A single Microsoft account can be used to manage multiple Azure subscriptions.	<input type="radio"/>	<input type="radio"/>
Two Azure subscriptions can be merged into a single subscription by creating a support request.	<input type="radio"/>	<input type="radio"/>
A company can store resources in multiple subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: A single Microsoft account can be used to manage multiple Azure subscriptions.

Yes

Statement 2: Two Azure subscriptions can be merged into a single subscription by creating a support request.

No

Statement 3: A company can store resources in multiple subscriptions.

Yes

Explanation:

An Azure account, which serves as an identity in Azure Active Directory, can be associated with multiple subscriptions for management and billing purposes. This is a standard practice for organizing resources. For instance, a company often uses separate subscriptions for development, testing, and production environments to isolate resources and manage costs effectively. However, Azure does not provide a feature to "merge" two subscriptions into one. While you can move most resources from one subscription to another, the original subscription entities cannot be combined. This organizational structure using multiple subscriptions is a foundational concept in the Azure governance model.

References:

Microsoft Documentation, Azure landing zones - Design principles: States that "Subscription democratization" is a core principle. "Use subscriptions as a unit of management and scale aligned with business needs and priorities to support business areas and portfolio owners..." This confirms that a company can and should use multiple subscriptions.

Microsoft Documentation, Organize your resources with Azure management groups: The documentation hierarchy shows that a single Azure Active Directory (Azure AD) tenant can contain multiple management groups, which in turn contain multiple subscriptions. This visually and textually confirms that a single identity/tenant can manage many subscriptions.

Microsoft Documentation, Move resources to a new resource group or subscription: This document details the process for moving resources between subscriptions. It explicitly describes a move operation and outlines its requirements and limitations. It makes no mention of a "merge" operation, as such a function does not exist in Azure. The process involves transferring resources, not combining the subscriptions themselves.

Question: 48

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

Statements	Yes	No
The Service Level Agreement (SLA) guaranteed uptime for paid Azure services is at least 99.9 percent.	<input type="radio"/>	<input type="radio"/>
Companies can increase the Service Level Agreement (SLA) guaranteed uptime by adding Azure resources to multiple regions.	<input type="radio"/>	<input type="radio"/>
Companies can increase the Service Level Agreement (SLA) guaranteed uptime by purchasing multiple subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

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Statement 1: No

Statement 2: Yes

Statement 3: No

Explanation:

The Service Level Agreement (SLA) guaranteed uptime for paid Azure services is at least 99.9 percent. (No) Not all paid Azure services have an SLA of at least 99.9%. The guaranteed uptime varies significantly depending on the specific service and its configuration. For instance, a single-instance Virtual Machine using Standard SSD Managed Disks has an SLA of 99.5%. An SLA of 99.9% or higher typically requires specific configurations, such as using premium storage or deploying multiple instances in an Availability Set or across Availability Zones.

Companies can increase the Service Level Agreement (SLA) guaranteed uptime by adding Azure resources to multiple regions. (Yes) Deploying resources across multiple Azure regions is a standard high-availability and disaster recovery strategy. This architecture creates redundancy, so if one region experiences an outage, the application can fail over to the other region. This design results in a higher composite SLA for the overall application than what can be achieved within a

single region, thereby increasing the effective guaranteed uptime.

Companies can increase the Service Level Agreement (SLA) guaranteed uptime by purchasing multiple subscriptions. (No) An Azure subscription is a logical container for management, billing, and access control. It does not inherently affect the SLA of the resources deployed within it. The SLA is determined by the architecture of the services themselves (e.g., redundancy, service tier), not the number of subscriptions used to organize them.

References:

Microsoft Azure Documentation, "SLA for Virtual Machines." This document explicitly states different SLA levels for single-instance VMs based on the storage type used, including 99.5% for VMs with Standard SSDs.

Microsoft Azure Documentation, "SLA summary for Azure services." This official summary page lists the individual SLAs for various Azure services, demonstrating the wide range of uptime guarantees below 99.9%.

Microsoft Azure Well-Architected Framework, "Design for high availability." In the "Design patterns for availability" section, it details how multi-region deployments are a key pattern to increase the overall availability and resiliency of an application, directly leading to a higher composite uptime.

Microsoft Azure Documentation, "Azure fundamental concepts." The section on "Azure subscriptions" describes a subscription as a management, billing, and scale boundary, with no mention of it influencing the SLA of the underlying resources.

Question: 49

This question requires that you evaluate the underlined text to determine if it is correct. You have several virtual machines in an Azure subscription. You create a new subscription. The virtual machines cannot be moved to the new subscription. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. The virtual machines can be moved to the new subscription
- C. The virtual machines can be moved to the new subscription only if they are all in the same resource group
- D. The virtual machines can be moved to the new subscription only if they run Windows Server 2016.

Answer:

B

Explanation:

The original statement is incorrect. Azure Resource Manager (ARM) provides the capability to move resources, including virtual machines, to a different subscription. This is a common administrative task for consolidating billing, reorganizing resources, or changing ownership. The move operation is supported as long as both the source and destination subscriptions exist within the same Azure Active Directory (Azure AD) tenant. The resources associated with the virtual machine, such as network interfaces and disks, must also be moved with it.

Why Incorrect Options are Wrong:

- A. No change is needed: This is incorrect because the original statement is factually false. Azure virtual machines can be moved between subscriptions.
- C. The virtual machines can be moved to the new subscription only if they are all in the same resource group: This is incorrect. You can select and move multiple resources from different resource groups in a single operation.
- D. The virtual machines can be moved to the new subscription only if they run Windows Server 2016: This is incorrect. The move operation is an infrastructure-level function managed by Azure Resource Manager and is independent of the guest operating system inside the virtual machine.

References:

1. Microsoft Learn. (2023). Move resources to a new resource group or subscription.

Section: "Checklist before moving resources"

Content: This document explicitly states, "You can move many different types of resources through the Azure portal... When moving resources, you move them to a new resource group or subscription." It also outlines the prerequisites, such as both subscriptions being within the same Azure AD tenant.

2. Microsoft Learn. (2023). Move operation support for resources.

Section: "Microsoft.Compute"

Content: This table confirms that virtualMachines can be moved across both resource groups and subscriptions. It validates that the core resource in the question is supported for this operation.

Question: 50

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company has an Azure subscription that contains the following unused resources:

- * 20 user accounts in Azure Active Directory (Azure AD)
- * Five groups in Azure AD
- * 10 public IP addresses
- * 10 network interfaces

* You need to reduce the Azure costs for the company. Solution: You remove the unused user accounts. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The proposed solution does not meet the goal of reducing Azure costs. The Azure Active Directory (Azure AD) Free edition, which is included with every Azure subscription, allows for up to 500,000 directory objects (such as users and groups) at no charge. Therefore, deleting 20 unused user accounts from this tier will not impact the monthly bill.

Of the resources listed, the public IP addresses are the ones that incur costs, even when unused (specifically, static public IPs are charged for regardless of association). To effectively reduce costs, the unused public IP addresses should be removed, not the Azure AD user accounts.

Why Incorrect Options are Wrong:

A. Yes: This is incorrect because deleting user accounts in the standard Azure AD Free tier does not reduce subscription costs, as these objects are not individually billed.

References:

1. Azure Active Directory Pricing: Microsoft's official pricing page for Azure AD confirms that the Free edition, included with an Azure subscription, has no cost for directory objects up to 500,000. Source: Microsoft Azure. (n.d.). Azure Active Directory Pricing. Retrieved from <https://azure.microsoft.com/en-us/pricing/details/active-directory/> (See the "Free" column in the feature comparison table).
2. Public IP Address Pricing: The official pricing documentation for IP addresses states that charges are incurred for public IP addresses. Static public IP addresses are charged an hourly rate even if they are not associated with a virtual machine.

Source: Microsoft Azure. (n.d.). IP Addresses pricing. Retrieved from <https://azure.microsoft.com/en-us/pricing/details/ip-addresses/> (See the section on "Public IP Addresses").

3. Network Interface Pricing: Official documentation clarifies that Network Interfaces (NICs) themselves do not have a separate charge.

Source: Microsoft Azure. (n.d.). Virtual Network pricing. Retrieved from <https://azure.microsoft.com/en-us/pricing/details/virtual-network/> (See the FAQ section, which states, "There is no charge for Network Interface (NIC)").

Question: 51

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company has an Azure subscription that contains the following unused resources:

- * 20 user accounts in Azure Active Directory (Azure AD)
- * Five groups in Azure AD
- * 10 public IP addresses
- * 10 network interfaces

You need to reduce the Azure costs for the company. Solution: You remove the unused public IP addresses. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The proposed solution effectively meets the goal of reducing Azure costs. Azure public IP addresses are billable resources, and they incur an hourly charge even when they are not associated with a running virtual machine. By deleting the 10 unused public IP addresses, the company directly eliminates these recurring costs from its monthly Azure bill. While other listed resources like Azure AD users/groups (in the Free tier) and network interfaces do not have a direct cost associated with them just for existing, public IPs do. Therefore, removing them is a valid and direct cost-saving action.

Why Incorrect Options are Wrong:

B. No: This option is incorrect. Deleting unused public IP addresses is a recognized best practice for Azure cost management because they are a metered resource that accrues charges regardless of their association state.

References:

1. Microsoft Azure Documentation, "Public IP address pricing": This official pricing page details the costs associated with public IP addresses. It explicitly states, "We charge for public IP addresses," and provides hourly rates for both static and dynamic IPs, including those not associated with a running resource.

Source: <https://azure.microsoft.com/en-us/pricing/details/ip-addresses/>

2. Microsoft Azure Documentation, "Azure Active Directory pricing": This page shows that the Azure AD Free tier, which is included with an Azure subscription, allows for up to 500,000

directory objects (like users and groups) at no cost. Therefore, simply having unused users and groups does not necessarily incur a cost.

Source: <https://azure.microsoft.com/en-us/pricing/details/active-directory/>

3. Microsoft Azure Documentation, "Virtual Network pricing": This document clarifies the pricing for various networking components. It indicates that there is no separate charge for a Network Interface (NIC) itself; its cost is implicitly bundled with the virtual machine it is attached to. An unattached NIC does not incur a charge.

Source: <https://azure.microsoft.com/en-us/pricing/details/virtual-network/> (Refer to the FAQ section which often clarifies pricing for individual components like NICs).

Question: 52

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company has an Azure subscription that contains the following unused resources:

- * 20 user accounts in Azure Active Directory (Azure AD)
- * Five groups in Azure AD
- * 10 public IP addresses
- * 10 network interfaces

You need to reduce the Azure costs for the company. Solution: You remove the unused groups. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The proposed solution is to remove unused groups in Azure Active Directory (Azure AD) to reduce costs. This action does not meet the goal because Azure AD groups, in themselves, do not incur a direct cost. The Azure AD Free edition, which is included with an Azure subscription, allows for the creation of users and groups without charge up to a large object limit. Costs associated with Azure AD are typically for premium per-user licenses (P1/P2 tiers), not for the quantity of groups. Of the resources listed, unused public IP addresses are the ones that incur ongoing charges and should be removed to reduce costs.

Why Incorrect Options are Wrong:

- A. Yes: This is incorrect because deleting Azure AD groups does not result in a cost reduction. Group management is a free feature within Azure AD.

References:

1. Azure Active Directory Pricing: The official pricing page for Azure AD shows that the "Free" tier, included with a subscription to a commercial online service (e.g., Azure), provides "User and group management." Costs are introduced with Premium P1 and P2 tiers, which are priced on a "per user" basis. There is no mention of a cost per group.
Source: Microsoft Azure, "Azure Active Directory Pricing," Section: "Pricing details."
2. Public IP Address Pricing: This document details the costs associated with public IP addresses. It shows an hourly charge for both static and dynamic IP addresses, especially for static IPs not associated with a running resource, confirming they are a source of cost.

Source: Microsoft Azure, "Public IP Address pricing," Section: "Public IP addresses."

3. Azure Cost Management and Billing documentation: This documentation explains how to analyze and optimize Azure costs. It emphasizes identifying and eliminating unprovisioned or unused resources like public IP addresses, which incur costs even when idle.

Source: Microsoft Learn, "Tutorial: Review your individual Azure subscription bill," Section: "Analyze your daily usage and costs."

Question: 53

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You have an Azure environment. You need to create a new Azure virtual machine from an Android laptop. Solution: You use the Azure portal. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The Azure portal is a web-based management console accessible through any modern web browser. An Android laptop is capable of running a supported web browser, such as Google Chrome or Microsoft Edge. By navigating to portal.azure.com in the browser, a user can sign in and access the full functionality of the Azure portal, which includes the creation and management of resources like virtual machines. Therefore, using the Azure portal from an Android laptop is a valid and effective method to accomplish the task.

Why Incorrect Options are Wrong:

B. No: This is incorrect. The Azure portal's functionality is delivered through a web interface, making it independent of the client's operating system, as long as a supported browser is used.

References:

1. Microsoft Learn. (2023). What is the Azure portal? Retrieved from Microsoft Docs. In the "Key features" section, it states, "The Azure portal is a web-based, unified console...".

Reference: <https://learn.microsoft.com/en-us/azure/azure-portal/azure-portal-overview>, Section: "Key features".

2. Microsoft Learn. (2023). Azure portal supported browsers and devices. Retrieved from Microsoft Docs. This document lists supported browsers (including Chrome, which is available on Android) and states, "In general, the Azure portal runs on most modern desktop and tablet devices."

Reference:

<https://learn.microsoft.com/en-us/azure/azure-portal/azure-portal-supported-browsers-devices>, Section: "Supported browsers".

3. Microsoft Learn. (2024). Quickstart: Create a Windows virtual machine in the Azure portal. Retrieved from Microsoft Docs. This guide demonstrates that creating a virtual machine is a primary function of the web-based portal.
Reference: <https://learn.microsoft.com/en-us/azure/virtual-machines/windows/quick-create-portal>,
Section: "Sign in to Azure".

Question: 54

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You have an Azure environment. You need to create a new Azure virtual machine from an Android laptop. Solution: You use the PowerApps portal. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The proposed solution is incorrect. The PowerApps portal is a component of the Microsoft Power Platform, designed for building and using low-code custom business applications. It is not an administrative tool for provisioning or managing core Azure infrastructure resources like virtual machines. The appropriate tools for creating an Azure virtual machine are the Azure portal, Azure CLI, Azure PowerShell, or ARM templates. The Azure portal and Azure Cloud Shell (which provides browser-based access to the CLI and PowerShell) are both accessible from a web browser on an Android laptop, making them suitable for this task.

Why Incorrect Options are Wrong:

- A. Yes: This is incorrect because the PowerApps portal is a platform for application development, not for direct management of Azure Infrastructure as a Service (IaaS) components such as virtual machines.

References:

1. Microsoft Learn. "What is Power Apps?". Power Platform Documentation. This document defines Power Apps as a platform for building custom business applications, which is distinct from managing Azure infrastructure. It states, "Power Apps is a suite of apps, services, and connectors, as well as a data platform, that provides a rapid development environment to build custom apps for your business needs."
2. Microsoft Learn. "Describe Azure management tools". AZ-900: Describe core Azure concepts. This module explicitly lists the correct tools for managing Azure resources. It identifies the Azure portal, Azure PowerShell, Azure Command-Line Interface (CLI), and Azure Cloud Shell as the primary interfaces for interacting with and managing Azure services, including the creation of

virtual machines.

3. Microsoft Learn. "Azure portal overview". Azure portal documentation. This source describes the Azure portal as "a web-based, unified console that provides an alternative to command-line tools." Its web-based nature confirms it can be accessed from any device with a modern browser, including an Android laptop, to perform administrative tasks like creating a VM.

Question: 55

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You have an Azure environment. You need to create a new Azure virtual machine from an Android laptop. Solution: You use Bash in Azure Cloud Shell. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

Azure Cloud Shell is an interactive, browser-accessible command-line interface for managing Azure resources. It can be accessed from any device with a modern web browser, including an Android laptop. By navigating to the Azure portal or shell.azure.com, a user can launch Cloud Shell and select the Bash environment. The Bash environment comes pre-configured with the Azure Command-Line Interface (CLI). Using Azure CLI commands, such as az vm create, a user can successfully provision a new virtual machine. Therefore, this solution meets the goal.

Why Incorrect Options are Wrong:

B. No: This is incorrect. Azure Cloud Shell is designed to be accessible from any modern web browser, regardless of the underlying operating system like Android, and it fully supports VM creation via the Azure CLI.

References:

1. Microsoft Learn. (2023). Overview of Azure Cloud Shell. "Azure Cloud Shell is an interactive, authenticated, browser-accessible shell for managing Azure resources. It provides the flexibility of choosing the shell experience that best suits the way you work, either Bash or PowerShell." Retrieved from <https://learn.microsoft.com/en-us/azure/cloud-shell/overview>, Section: "Features".
2. Microsoft Learn. (2023). Quickstart for Bash in Azure Cloud Shell. "This document details how to use Bash in Azure Cloud Shell in the Azure portal." Retrieved from <https://learn.microsoft.com/en-us/azure/cloud-shell/quickstart>, Section: "Start Cloud Shell".
3. Microsoft Learn. (2024). Quickstart: Create a Linux virtual machine with the Azure CLI. "You can complete the steps with the Azure Cloud Shell... The Azure Cloud Shell is a free interactive shell that you can use to run the steps in this article." Retrieved from

<https://learn.microsoft.com/en-us/azure/virtual-machines/linux/quick-create-cli>, Section: "Prerequisites".

Question: 56

This question requires that you evaluate the underlined text to determine if it is correct. Azure policies provide a common platform for deploying objects to a cloud infrastructure and for implementing consistency across the Azure environment. Instructions: Review the undefined text If it makes the statement correct, select "No change is needed." If the statement is incorrect select the answer choice that makes the statement correct.

- A. No change is needed.
- B. Resource groups provide
- C. Azure Resource Manager provides
- D. Management groups provide

Answer:

C

Explanation:

Azure Resource Manager (ARM) is the deployment and management service for Azure. It provides a consistent management layer that enables you to create, update, and delete resources. A key feature of ARM is the use of declarative templates (ARM templates) to define the infrastructure and configuration for a solution. This "infrastructure as code" approach allows for the repeated and consistent deployment of objects (resources) across the Azure environment, which is the core function described in the statement. Azure Policy, conversely, is a service for enforcing organizational standards and assessing compliance; it does not deploy resources.

Why Incorrect Options are Wrong:

- A. No change is needed: Azure Policy is a governance service used to enforce rules and compliance on resources; it is not a deployment platform.
- B. Resource groups provide: A resource group is a logical container for Azure resources, not the service used for deploying them or ensuring deployment consistency.
- D. Management groups provide: Management groups are containers for managing access, policy, and compliance across multiple subscriptions, not a platform for deploying objects.

References:

1. Microsoft Documentation. "What is Azure Resource Manager?". Microsoft Learn. "Azure Resource Manager is the deployment and management service for Azure. It provides a management layer that enables you to create, update, and delete resources in your Azure account... With templates, you can repeatedly deploy your solution throughout the development lifecycle and have confidence your resources are deployed in a consistent state."
2. Microsoft Documentation. "What is Azure Policy?". Microsoft Learn. "Azure Policy is a service

in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant with your corporate standards and service level agreements."

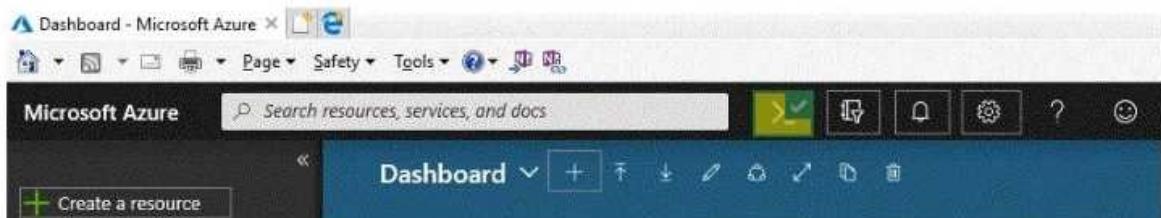
3. Microsoft Documentation. "What are Azure management groups?". Microsoft Learn. "If your organization has many subscriptions, you may need a way to efficiently manage access, policies, and compliance for those subscriptions. Azure management groups provide a level of scope above subscriptions."

4. Microsoft Documentation. "Azure resource groups". Microsoft Learn. "A resource group is a container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group."

Question: 57

HOTSPOT You need to manage Azure by using Azure Cloud Shell. Which Azure portal icon should you select? To answer, select the appropriate icon in the answer area.

Answer Area



Answer:

You should select the icon that resembles a command-line or terminal window, located immediately to the right of the main search bar.

Explanation:

The icon marked with a greater-than symbol and an underscore (_) is the designated button for launching the Azure Cloud Shell. The Cloud Shell is an interactive, browser-accessible shell for managing Azure resources. It provides the flexibility of a command-line interface, with either Bash or PowerShell, directly within the Azure portal, pre-configured with the necessary tools like the Azure CLI and Azure PowerShell module.

References:

Microsoft Learn, Azure Cloud Shell documentation: In the "Quickstart for Bash in Azure Cloud Shell," the first step instructs the user to "Select the Cloud Shell icon on the top navigation bar of the Azure portal," and an accompanying image points to the icon.

Source: Microsoft Corporation. (2024). Quickstart for Bash in Azure Cloud Shell. Microsoft Learn. Retrieved from learn.microsoft.com/en-us/azure/cloud-shell/quickstart. (Refer to the "Start Cloud Shell" section).

Microsoft Learn, Azure fundamentals courseware: The module on Azure management tools explicitly identifies the icon in the portal's global controls as the entry point for the Cloud Shell.

Source: Microsoft Corporation. (2024). Describe tools for managing and deploying Azure resources. Microsoft Learn. Retrieved from learn.microsoft.com/en-us/training/modules/describe-tools-for-azure/4-describe-azure-arc-azure-arm. (Refer to the section on Azure Cloud Shell).

Question: 58

A team of developers at your company plans to deploy, and then remove, 50 customized virtual machines each week. Thirty of the virtual machines run Windows Server 2016 and 20 of the virtual machines run Ubuntu Linux. You need to recommend which Azure service will minimize the administrative effort required to deploy and remove the virtual machines. What should you recommend?

- A. Azure virtual machine scale sets
- B. Microsoft Managed Desktop
- C. Azure DevTest Labs
- D. Azure Reserved Virtual Machine (VM) Instances

Answer:

C

Explanation:

Azure DevTest Labs is a service specifically designed to enable teams to quickly create, manage, and tear down development and testing environments. It minimizes administrative effort by allowing administrators to set up pre-configured templates, artifacts, and policies (like auto-shutdown schedules and VM limits). This empowers developers to self-serve the creation of their customized Windows and Linux virtual machines from these templates without direct administrative intervention for each deployment cycle. This directly addresses the scenario's requirement to efficiently deploy and remove numerous custom VMs weekly.

Why Incorrect Options are Wrong:

- A. Azure virtual machine scale sets: This service is for deploying and managing a set of identical, auto-scaling VMs for high-availability applications, not for managing the lifecycle of customized, temporary dev/test environments.
- B. Microsoft Managed Desktop: This is a service for managing the physical desktop and device experience for end-users with Microsoft 365, not for deploying server VMs for development purposes.
- D. Azure Reserved Virtual Machine (VM) Instances: This is a purchasing option that provides a discount on VM costs for a long-term commitment. It is a billing feature, not a service for managing or deploying VMs.

References:

1. Microsoft Learn. "What is Azure DevTest Labs?". Azure Documentation. "Azure DevTest Labs is a service that helps developers and testers quickly create environments in Azure while minimizing waste and controlling cost... DevTest Labs makes it easy to control costs by allowing you to set policies on your labs - such as number of virtual machines (VM) per user and number of labs per user."
2. Microsoft Learn. "AZ-900: Describe Azure management and governance". Describe cost management in Azure. This module contrasts services, explaining that Azure Reservations are for reducing costs, not for management. "Azure Reservations offers discounted prices on certain Azure services. Reservations can save you up to 72 percent as compared to pay-as-you-go prices."
3. Microsoft Learn. "What are virtual machine scale sets?". Azure Documentation. "Azure virtual machine scale sets let you create and manage a group of load balanced VMs. The number of VM instances can automatically increase or decrease in response to demand or a defined schedule." This highlights its purpose for scaling production workloads.

Question: 59

HOTSPOT You have an Azure environment that contains 10 web apps. To which URL should you connect to manage all the Azure resources? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area



Answer:

portal.azure.com

Explanation:

CertMage.com

The unified web-based console for creating, configuring, and managing every type of Azure resource—including App Service web apps—is the Azure portal, which is accessed at <https://portal.azure.com>. Microsoft's official documentation designates this URL as the entry point for all resource management tasks in an Azure subscription; no other service-specific URL provides the same complete management scope.

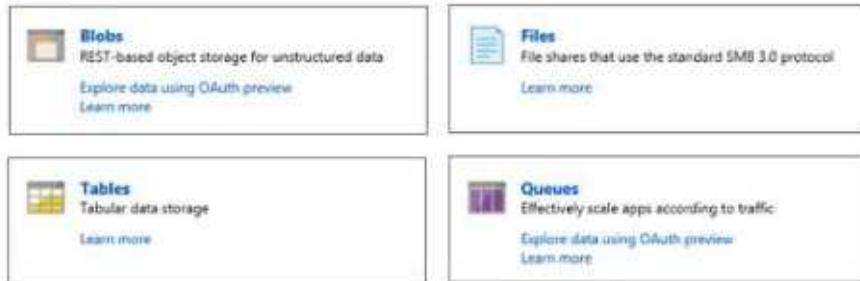
References:

1. Microsoft Learn - "Azure portal overview", Sign in section, para 1 (<https://learn.microsoft.com/en-us/azure/azure-portal/azure-portal-overview>)
2. Microsoft Learn - "Quickstart: Create an Azure resource group using the Azure portal", Prerequisites, step 1 (<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/manage-resource-groups-portal>)

Question: 60

HOTSPOT You plan to create an Azure virtual machine. You need to identify which storage service must be used to store the data disks of the virtual machine. What should you identify? To answer, select the appropriate service in the answer area.

Answer Area



Answer:

Blob

Explanation:

Virtual machine OS and data disks are stored as virtual hard-disk (VHD) files that Azure implements as page blobs inside Azure Storage. Page blobs (a sub-type of the Blob storage service) are optimized for random read/write operations required by VM disks; tables, queues, or Azure Files cannot host VM VHDs. Therefore, the required storage service is Azure Blob storage.

References:

1. Microsoft Docs - "Azure managed disks overview", Section 'Architecture', para 2: "Managed disks are implemented as page blobs stored in Azure Storage."
(<https://learn.microsoft.com/azure/virtual-machines/managed-disks-overview>)
2. Microsoft Docs - "Overview of VHDs and page blobs", Section 'Page blobs for VHD files': "In Azure, virtual hard disks are stored as page blobs in the Blob storage service."
(<https://learn.microsoft.com/azure/storage/blobs/vhd-page-blob-overview>)
3. Microsoft Azure Architecture Center - "Design for Storage", p. Disk storage section: "Azure Disk Storage uses page blobs in Azure Storage to provide durable, high-performance disks for VMs." (<https://learn.microsoft.com/azure/architecture/guide/technology-choices/storage>)

Question: 61

You plan to store 20 TB of data in Azure. The data will be accessed infrequently and visualized by using Microsoft Power BI. You need to recommend a storage solution for the data. Which two solutions should you recommend? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. Azure SQL Database
- B. Azure Cosmos DB
- C. Azure SQL Data Warehouse
- D. Azure Database for PostgreSQL
- E. Azure Data Lake

Answer:

C, E

Explanation:

The scenario involves storing a very large dataset (20 TB) for infrequent analysis and visualization with Power BI. This points to a big data analytics or data warehousing solution. Azure SQL Data Warehouse (now part of Azure Synapse Analytics) is a massively parallel processing (MPP) cloud-based analytics service. It is specifically designed to run complex queries across petabytes of data, making it ideal for enterprise-scale business intelligence and reporting, which aligns perfectly with the Power BI visualization requirement.

Azure Data Lake is a highly scalable storage repository designed to hold massive amounts of structured, semi-structured, and unstructured data. It serves as a cost-effective foundation for big data analytics and integrates directly with analytics services and visualization tools like Power BI.

Why Incorrect Options are Wrong:

- A. Azure SQL Database: This is a relational database service (PaaS) optimized for online transaction processing (OLTP), not for 20 TB-scale analytical workloads.
- B. Azure Cosmos DB: This is a globally distributed, multi-model NoSQL database designed for high-throughput, low-latency transactional applications, not large-scale data analytics.
- D. Azure Database for PostgreSQL: This is a managed relational database service for OLTP applications and is not designed or cost-effective for petabyte-scale data warehousing.

References:

1. Microsoft Learn, Azure Architecture Center. "Choose an analytical data store in Azure." This document explicitly positions Azure Synapse Analytics for "Enterprise data warehousing and big data analytics" and Azure Data Lake Storage as a "Data lake" for "Big data analytics." It contrasts

these with Azure SQL Database, which is categorized for "Relational data" and "OLTP."

2. Microsoft Learn, Azure Synapse Analytics Documentation. "What is Azure Synapse Analytics?". The documentation states, "Azure Synapse is an enterprise analytics service that accelerates time to insight across data warehouses and big data systems... and deep integration with other Azure services such as Power BI."

3. Microsoft Learn, Azure Data Lake Storage Documentation. "Introduction to Azure Data Lake Storage Gen2." This page describes it as "a set of capabilities dedicated to big data analytics, built on Azure Blob Storage" and notes its ability to handle "petabyte-size files and trillions of objects."

4. Microsoft Learn, Power BI Documentation. "Use Azure Synapse Analytics with Power BI." This guide details the direct and optimized connectivity between Power BI and Azure Synapse Analytics for large-scale data visualization and analysis.

Question: 62

This question requires that you evaluate the underlined text to determine if it is correct. When you need to delegate permissions to several Azure virtual machines simultaneously, you must deploy the Azure virtual machines to the same Azure region. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. by using the same Azure Resource Manager template
- C. to the same resource group
- D. to the same availability zone

Answer:

C

Explanation:

To manage permissions for multiple Azure resources efficiently, you group them into a container and apply permissions to that container. In Azure, the primary container for related resources is a resource group. Azure Role-Based Access Control (Azure RBAC) allows you to assign roles at different scopes, including the resource group scope. When a role is assigned to a resource group, all resources within it, such as virtual machines, inherit those permissions. This is the standard and most effective method for delegating permissions to several resources simultaneously.

Why Incorrect Options are Wrong:

A. No change is needed.

An Azure region is a geographical deployment location; it is not a scope for applying permissions to a group of resources.

B. by using the same Azure Resource Manager template

An ARM template is used for declarative deployment and configuration of resources, not as a management boundary for delegating permissions after deployment.

D. to the same availability zone

An availability zone is a high-availability feature within a region to protect against datacenter failures and is unrelated to permissions management.

References:

1. Microsoft Learn, Azure role-based access control (Azure RBAC), "Scope" section. It states, "Scope is the set of resources that the access applies to... you can further limit the actions allowed by defining a scope. This is helpful if you want to make someone a Website Contributor, but only for one resource group." This confirms that a resource group is a primary scope for applying permissions.
2. Microsoft Learn, Azure Resource Manager overview, "Terminology" section, under "resource group". It states, "A container that holds related resources for an Azure solution... The resource group can include all the resources for the solution, or only those resources that you want to manage as a group." This defines the resource group as the intended management container.
3. Microsoft Learn, Azure role-based access control (Azure RBAC), "How Azure RBAC works" section. The inheritance diagram clearly shows that permissions applied at a resource group scope flow down to the resources (like VMs) contained within it.

Question: 63

HOTSPOT Which cloud deployment is used for Azure virtual machines and Azure SQL database? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

Azure virtual machines:	<input type="checkbox"/> Infrastructure as a service (IaaS) <input type="checkbox"/> Platform as a service (PaaS) <input type="checkbox"/> Software as a service (SaaS)
Azure SQL databases:	<input checked="" type="checkbox"/> Infrastructure as a service (IaaS) <input type="checkbox"/> Platform as a service (PaaS) <input type="checkbox"/> Software as a service (SaaS)

Answer:

Azure virtual machines: Infrastructure as a service (IaaS)

Azure SQL databases: Platform as a service (PaaS)

Explanation:

Azure virtual machines are classified as Infrastructure as a service (IaaS) because they provide fundamental computing infrastructure (servers, storage, networking) over the internet. With IaaS, the user is responsible for managing the operating system, middleware, and applications, while the cloud provider (Microsoft) manages the underlying physical hardware.

Azure SQL databases are a Platform as a service (PaaS) offering. In this model, the cloud provider manages the underlying infrastructure, the operating system, and the database engine software (e.g., SQL Server). The user is only responsible for the data and the database schema, allowing them to focus on application development without managing the platform itself.

References:

as providing "virtual machines on which the cloud users can run their own applications," which directly corresponds to Azure VMs. PaaS is described as offering "a higher-level abstraction" for application development, which matches the managed environment of Azure SQL Database.

Source: Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., ... & Zaharia, M. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58. Section 3.1, "Classes of Utility Computing". DOI: <https://doi.org/10.1145/1721654.1721672>

Question: 64

You plan to migrate several servers from an on-premises network to Azure. You need to identify the primary benefit of using a public cloud service for the servers. What should you identify?

- A. The public cloud is owned by the public, NOT a private corporation.
- B. All public cloud resources can be freely accessed by every member of the public.
- C. The public cloud is a crowd-sourcing solution that provides corporations with the ability to enhance the cloud.
- D. The public cloud is a shared entity whereby multiple corporations each use a portion of the resources in the cloud.

Answer:

D

Explanation:

The primary characteristic and benefit of a public cloud, such as Microsoft Azure, is its multi-tenant architecture. In this model, a cloud provider owns and operates the computing infrastructure (servers, storage, networking) and offers access to it over the public internet. Multiple customers, or "tenants," share this underlying infrastructure. This shared model creates economies of scale, allowing customers to pay only for the resources they use (an operational expense) without the capital expenditure and management overhead of owning and maintaining private hardware. This is a fundamental advantage when migrating from an on-premises environment.

Why Incorrect Options are Wrong:

- A. Public clouds are owned and operated by private corporations (e.g., Microsoft, Amazon, Google), not by the public.
- B. Resources are not freely accessible to the public; access is securely managed and restricted to the subscribing customer.
- C. The cloud platform is developed and managed by the cloud provider, not through a crowd-sourcing model.

References:

1. Microsoft Learn, AZ-900: Describe cloud concepts, "Describe the public, private, and hybrid cloud models" unit.

Reference: "Public cloud is cloud services offered over the public internet and available to anyone who wants to purchase them. Cloud resources, such as servers and storage, are owned and operated by a third-party cloud service provider and delivered over the internet." This text confirms that a private entity owns the infrastructure (refuting A) and provides it as a shared

service (supporting D).

2. Microsoft Learn, AZ-900: Describe cloud concepts, "What are cloud deployment models?" unit.

Reference: Under the "Public cloud" section, it states, "In some cases, you can save additional costs by sharing computing resources with other cloud users." This directly supports the concept of a shared entity as described in option D.

3. National Institute of Standards and Technology (NIST) Special Publication 800-145, "The NIST Definition of Cloud Computing".

Reference: Section 2, "Deployment Models," defines a Public Cloud: "The cloud infrastructure is provisioned for open use by the general public. It may be owned, managed, and operated by a business, academic, or government organization, or some combination of them. It exists on the premises of the cloud provider." This authoritative definition supports that the infrastructure is shared ("open use by the general public") and owned by a provider, not the public itself.

Question: 65

What should you use to evaluate whether your company's Azure environment meets regulatory requirements?

- A. Compliance Manager from the Security Trust Portal
- B. the Advisor blade from the Azure policy
- C. the Knowledge Center website
- D. the Security Center blade from the Azure portal

Answer:

D

Explanation:

Microsoft Defender for Cloud (formerly Azure Security Center) is the primary tool within the Azure portal for assessing and improving the security posture of cloud workloads. It includes a Regulatory Compliance dashboard that continuously evaluates your Azure environment against a wide range of security standards and regulatory frameworks (such as ISO 27001, PCI DSS, and SOC TSP). This feature provides a clear view of your compliance status by mapping Azure Policy initiatives to compliance controls, allowing you to identify and remediate any configurations that do not meet specific regulatory requirements.

Why Incorrect Options are Wrong:

- A. Compliance Manager from the Security Trust Portal: Compliance Manager is a broader tool for managing an organization's overall compliance activities across Microsoft Cloud services, not just for technically evaluating the Azure environment.
- B. the Advisor blade from the Azure policy: This option incorrectly combines two distinct services. Azure Advisor provides best-practice recommendations, while Azure Policy is used to enforce rules, not primarily to evaluate against external regulatory standards.
- C. the Knowledge Center website: This is a generic term for documentation and learning resources. It is not an interactive tool used to assess a live Azure environment for compliance.

References:

1. Microsoft Learn. (2023). Tutorial: Improve your regulatory compliance. Microsoft Docs. Reference Section: Introduction.
Content: "Microsoft Defender for Cloud helps streamline the process for meeting regulatory compliance requirements, using the regulatory compliance dashboard. From the dashboard, you can view the status of all the assessments within your environment for your chosen standards and regulations."

2. Microsoft Learn. (2023). Describe Microsoft Defender for Cloud. AZ-900: Microsoft Azure Fundamentals courseware.

Reference Section: Module "Describe security, privacy, compliance, and trust", Unit "Explore Microsoft Defender for Cloud".

Content: "The regulatory compliance dashboard shows you the status of all the assessments within your environment for your chosen standards and regulations. As you act on the recommendations and reduce risk factors in your environment, your compliance posture improves."

3. Microsoft Learn. (2023). Describe compliance management capabilities in Microsoft. AZ-900: Microsoft Azure Fundamentals courseware.

Reference Section: Module "Describe security, privacy, compliance, and trust", Unit "Describe Compliance Manager".

Content: This unit explains that Compliance Manager is a workflow-based risk assessment tool in the Microsoft Purview compliance portal that helps you track, assign, and verify your organization's compliance activities, distinguishing it from the direct environment assessment function of Defender for Cloud.

Question: 66

This question requires that you evaluate the underlined text to determine if it is correct. Authorization is the process of verifying a user's credentials. Instructions: Review the underlined text If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. Authentication
- C. Federation
- D. Ticketing

Answer:

B

Explanation:

The statement incorrectly defines authorization. The process of verifying a user's credentials to prove their identity is authentication. Authentication confirms who a user is. In contrast, authorization is the subsequent process of determining what an authenticated user is permitted to access or do. For example, after you authenticate by providing a correct password, authorization determines which files you are allowed to open.

Why Incorrect Options are Wrong:

- A. No change is needed: The original statement is incorrect because it confuses the definitions of authorization and authentication.
- C. Federation: This is a system of trust between different identity providers, allowing a user authenticated in one domain to access resources in another.
- D. Ticketing: This refers to a mechanism, like a security token or ticket, that is issued after successful authentication and presented to access resources.

References:

1. Microsoft Learn, AZ-900: Describe concepts of authentication and authorization.
"Authentication is the process of proving that you are who you say you are. It's sometimes shortened to AuthN. Authentication is performed when you challenge a party for a legitimate credential, and that challenge is met with the correct credential."
2. Microsoft Learn, AZ-900: Describe authentication and authorization. "Authentication (AuthN) is the process of establishing the identity of a person or service that wants to access a resource... This process involves the act of challenging a party for a legitimate credential."
3. Microsoft Learn, What is federation with Microsoft Entra ID? "Federation is a collection of domains that have established trust. The level of trust may vary, but typically includes

authentication and almost always includes authorization." This reference distinguishes federation from the core process of authentication.

Question: 67

Your company plans to automate the deployment of servers to Azure. Your manager is concerned that you may expose administrative credentials during the deployment. You need to recommend an Azure solution that encrypts the administrative credentials during the deployment. What should you include in the recommendation?

- A. Azure Key Vault
- B. Azure Multi-Factor Authentication (MFA)
- C. Azure Security Center
- D. Azure Information Protection

Answer:

A

Explanation:

Azure Key Vault is the appropriate service for this scenario. It is a cloud service for securely storing and accessing secrets, such as API keys, passwords, certificates, or cryptographic keys. During an automated deployment, scripts and templates can be configured to retrieve the necessary administrative credentials directly from Key Vault at runtime. This practice ensures that sensitive information is not hard-coded or exposed in plain text within the deployment scripts, configuration files, or source code control, directly addressing the concern of exposing credentials.

Why Incorrect Options are Wrong:

- B. Azure Multi-Factor Authentication (MFA): This service adds a layer of security to user sign-ins and is not designed for storing secrets for automated processes.
- C. Azure Security Center: This is a security posture management and threat protection service; it does not store or manage credentials for deployments.
- D. Azure Information Protection: This service is used to classify and protect documents and emails, not to manage secrets for infrastructure deployment.

References:

1. Microsoft Learn. (2024). What is Azure Key Vault? "Azure Key Vault is a cloud service for securely storing and accessing secrets. A secret is anything that you want to tightly control access to, such as API keys, passwords, certificates, or cryptographic keys." Retrieved from Microsoft Learn, "Core concepts" section, Paragraph 1.
2. Microsoft Learn. (2024). AZ-900: Describe the purpose and usage of Azure Key Vault. "Key Vault helps you solve the problem of managing secrets. For example, instead of putting a password in your code, you can store it in Key Vault. Your applications can then securely access

the password by using a URI." Retrieved from Microsoft Learn, "What is Azure Key Vault?" section, Paragraph 2.

3. Microsoft Learn. (2024). How it works: Azure Multi-Factor Authentication. "Azure Multi-Factor Authentication helps safeguard access to data and applications while maintaining simplicity for users. It provides additional security by requiring a second form of verification..." Retrieved from Microsoft Learn, "Introduction" section, Paragraph 1.

4. Microsoft Learn. (2024). What is Microsoft Defender for Cloud? "Microsoft Defender for Cloud is a cloud-native application protection platform (CNAPP) that is designed to protect your cloud-based applications from code to cloud." Retrieved from Microsoft Learn, "Introduction" section, Paragraph 1.

Question: 68

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

[image could not be rendered]

Answer:

No

No

Yes

Explanation:

Neither Azure Firewall nor Network Security Groups (NSGs) are designed to encrypt network traffic. Their primary function is traffic filtering and security policy enforcement. Azure Firewall is a managed firewall service for threat protection, while NSGs filter traffic to and from resources based on security rules.

Encryption of network traffic is handled at different layers, most commonly by the application or the operating system. An Azure virtual machine running Windows Server 2016 can absolutely encrypt traffic sent to the internet. This is achieved by using secure protocols such as Transport Layer Security (TLS) for web traffic (HTTPS), IPsec for setting up secure tunnels, or Secure Shell (SSH) for secure remote management. The OS provides the capabilities for applications to establish these encrypted connections.

References:

Azure Firewall Documentation: Microsoft's official documentation clarifies that Azure Firewall is a "cloud-native and intelligent network firewall security service" focused on threat protection and traffic filtering (application and network rules), not on encrypting all outbound traffic.

Microsoft Learn. (2023). What is Azure Firewall?. "Key features" section. Retrieved from <https://learn.microsoft.com/en-us/azure/firewall/overview>.

Network Security Groups Documentation: The official documentation states, "You can use an Azure network security group to filter network traffic between Azure resources in an Azure virtual network." It details how NSGs use rules based on IP addresses, ports, and protocols to allow or deny traffic, confirming their role as a filter, not an encryptor.

Microsoft Learn. (2024). Network security groups. "Overview" section. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview>.

Azure Encryption Overview: Microsoft's documentation on Azure security explains that encryption in transit can be implemented at various layers. It specifically mentions that end-users can

manage encryption at the application layer within virtual machines. This confirms that a VM's operating system, like Windows Server, supports the necessary protocols (e.g., TLS) for encrypting traffic.

Microsoft Learn. (2024). Azure encryption overview. "Encryption in transit" section. Retrieved from <https://learn.microsoft.com/en-us/azure/security/fundamentals/encryption-overview#encryption-in-transit>.

Question: 69

This question requires that you evaluate the underlined text to determine if it is correct. You have an Azure virtual network named VNET1 in a resource group named RG1. You assign an Azure policy specifying that virtual networks are not an allowed resource type in RG1. VNET1 is deleted automatically. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. is moved automatically to another resource group
- C. continues to function normally
- D. is now a read-only object

Answer:

C

Explanation:

The Azure Policy "Deny" effect is used to prevent the creation of new resources or the modification of existing resources that do not comply with the policy definition. However, this effect is not retroactive. It does not impact resources that already exist at the time the policy is assigned. The existing virtual network, VNET1, will be flagged as "non-compliant" during the next policy evaluation cycle, but it will not be deleted, moved, or altered. It will continue to function normally.

Why Incorrect Options are Wrong:

- A. The original statement is incorrect because the "Deny" policy effect does not automatically delete existing, non-compliant resources.
- B. Azure Policy does not have a built-in effect that automatically moves non-compliant resources to a different resource group.
- C. The "Deny" policy effect is different from an Azure Resource Lock. A resource lock makes an object read-only, but a policy does not.

References:

1. Microsoft Learn, AZ-900: Describe Azure management and governance, "Describe the purpose of Azure Policy": "When a policy with a deny effect is applied to an existing environment, any newly created resources that are non-compliant are blocked. Existing resources are not affected."
2. Microsoft Learn, "Understand Azure Policy effects": Under the "Deny" section, the documentation states, "Deny is used to prevent a resource request that doesn't match the defined standards through a policy definition and fails the request. Deny doesn't affect existing

resources."

3. Microsoft Learn, "Tutorial: Create and manage policies to enforce compliance": In the section explaining the "Deny" effect, it clarifies, "The deny effect prevents requests that don't match the policy definition. It doesn't affect existing resources."

Question: 70

What can Azure Information Protection encrypt?

- A. an Azure Storage account
- B. documents and email messages
- C. an Azure SQL database
- D. network traffic

Answer:

B

Explanation:

Azure Information Protection (AIP) is a cloud-based solution designed to help organizations classify and protect their data. Its primary function is to apply labels to documents and email messages. These labels can apply classification (e.g., "Confidential") and enforce protection policies, including encryption and access restrictions. The protection is persistent, meaning it travels with the data regardless of where it's stored or with whom it's shared. This ensures that sensitive information within files and emails remains secure.

Why Incorrect Options are Wrong:

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- A. an Azure Storage account: Azure Storage accounts are encrypted at rest using Storage Service Encryption (SSE), a platform-managed service, not Azure Information Protection.
- C. an Azure SQL database: Azure SQL databases use features like Transparent Data Encryption (TDE) for encryption at rest, which is distinct from the file-level protection offered by AIP.
- D. network traffic: Network traffic (data in transit) is secured using protocols like Transport Layer Security (TLS) or through services like Azure VPN Gateway, not by Azure Information Protection.

References:

1. Microsoft Learn. (2023). What is Azure Information Protection (AIP)? "Azure Information Protection (AIP) is a cloud-based solution that enables organizations to discover, classify, and protect documents and emails by applying labels to them."
2. Microsoft Learn. (2023). Describe security capabilities of Microsoft Azure - AZ-900. In the section "Describe Azure Information Protection," it states, "Azure Information Protection helps you classify and protect your organization's documents and emails."
3. Microsoft Learn. (2023). Azure Data Encryption at rest. This document details the encryption methods for various Azure services. Under "Azure storage encryption," it specifies Storage Service Encryption (SSE). Under "Azure database encryption," it specifies Transparent Data Encryption (TDE) for Azure SQL Database. This confirms that AIP is not the tool for these services.

Question: 71

This question requires that you evaluate the underlined text to determine if it is correct. If a resource group named RG1 has a delete lock, only a member of the global administrators group can delete RG1. Instructions: Review the underlined text If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. the delete lock must be removed before an administrator
- C. an Azure policy must be modified before an administrator

Answer:

B

Explanation:

An Azure resource lock (CanNotDelete) prevents the deletion of a resource by all users and roles, including administrators and owners. The lock is a property of the resource itself and is enforced at the Azure Resource Manager level, superseding any user permissions granted through Role-Based Access Control (RBAC). To delete a resource group that has a delete lock, a user with the appropriate permissions (such as Microsoft.Authorization/locks/delete) must first remove the lock. Only after the lock is removed can the resource group be deleted by a user with the necessary resource deletion permissions.

Why Incorrect Options are Wrong:

A. No change is needed.

This is incorrect because a delete lock applies to all roles, including Global Administrators. No role can bypass a resource lock.

C. an Azure policy must be modified before an administrator

This is incorrect. Azure Policy is used for enforcing organizational standards, not for preventing accidental deletion in this manner. The question explicitly refers to a "delete lock," a distinct feature.

D. an Azure tag must be added before an administrator

This is incorrect. Azure tags are metadata key-value pairs used for organizing resources and do not provide any form of protection against deletion.

References:

1. Microsoft Learn. (2023). Lock resources to prevent unexpected changes. "Locks apply to all users and roles. Only users with access to Microsoft.Authorization/locks/ actions can create or delete management locks... To delete a locked resource, you must first remove the lock." Reference: Section "Who can create or delete locks" and "How locks are applied".
2. Microsoft Learn. (2023). Overview of Azure Resource Manager locks. "As an administrator, you may need to lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources. You can set the lock level to CanNotDelete or ReadOnly... CanNotDelete means authorized users can still read and modify a resource, but they can't delete the resource." Reference: Introduction and "Lock types" section.

Question: 72

Your company has an Azure environment that contains resources in several regions. A company policy states that administrators must only be allowed to create additional Azure resources in a region in the country where their office is located. You need to create the Azure resource that must be used to meet the policy requirement. What should you create?

- A. a read-only lock
- B. a reservation
- C. an Azure policy
- D. a management group

Answer:

C

Explanation:

Azure Policy is the service designed to implement governance and enforce organizational standards across Azure resources. It allows you to create, assign, and manage policies that control or audit your resources. To meet the requirement of restricting resource creation to specific regions, an administrator would use the built-in "Allowed locations" policy definition. This policy can be assigned at a management group, subscription, or resource group scope, ensuring that all new resources deployed within that scope comply with the location constraint.

Why Incorrect Options are Wrong:

- A. a read-only lock: A resource lock prevents modification or deletion of an existing resource; it does not control where new resources can be created.
- B. a reservation: A reservation is a billing feature used to pre-purchase services for a discount and is unrelated to resource deployment governance or location restrictions.
- D. a management group: A management group is a container for organizing subscriptions to manage policy and access at scale, but it is the policy itself, not the group, that enforces the rule.

References:

1. Microsoft Learn. "What is Azure Policy?". Microsoft Docs. "Common use cases for Azure Policy include implementing governance for resource consistency, regulatory compliance, security, cost, and management. Policy definitions for these common use cases are already available in your Azure environment as built-ins. Some of the most common use cases are... Enforcing that resources are only deployed to specific regions."
2. Microsoft Learn. "Tutorial: Create and manage policies to enforce compliance". Microsoft Docs. Under the section "Assign a policy," the tutorial explicitly uses the "Allowed locations" policy as the primary example for restricting where resources can be created.

3. Microsoft Learn. "Lock resources to prevent unexpected changes". Microsoft Docs. "As an administrator, you may need to lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources... Locks don't restrict how resources perform their functions."
4. Microsoft Learn. "What are Azure management groups?". Microsoft Docs. "If your organization has many subscriptions, you may need a way to efficiently manage access, policies, and compliance for those subscriptions. Azure management groups provide a level of scope above subscriptions... You can apply policies to the management group that limit the regions where virtual machines (VMs) can be created." (This reference clarifies that policies are applied to management groups, but the policy is the enforcing resource).

Question: 73

Your company plans to move several servers to Azure. The company's compliance policy states that a server named FinServer must be on a separate network segment. You are evaluating which Azure services can be used to meet the compliance policy requirements. Which Azure solution should you recommend?

- A. a resource group for FinServer and another resource group for all the other servers
- B. a virtual network for FinServer and another virtual network for all the other servers
- C. a VPN for FinServer and a virtual network gateway for each other server
- D. one resource group for all the servers and a resource lock for FinServer

Answer:

B

Explanation:

The core requirement is to place the "FinServer" on a separate network segment for compliance. In Azure, a Virtual Network (VNet) represents an isolated network environment. By creating one VNet for FinServer and a second VNet for all other servers, you achieve network segmentation. Resources in different VNets cannot communicate by default, thus satisfying the compliance policy for network isolation. This is the standard and most direct method for creating separate network segments in Azure.

Why Incorrect Options are Wrong:

- A. a resource group for FinServer and another resource group for all the other servers
Resource groups are logical containers for managing resources, not for providing network isolation. Servers in different resource groups can still reside on the same virtual network.
- C. a VPN for FinServer and a virtual network gateway for each other server
VPNs and virtual network gateways are used for establishing secure connectivity between networks (e.g., VNet-to-VNet or on-premises to VNet), not for segmenting individual servers within Azure.
- D. one resource group for all the servers and a resource lock for FinServer
Resource locks are a management feature used to prevent accidental deletion or modification of a resource. They have no impact on network connectivity or segmentation.

References:

1. Microsoft Learn: What is Azure Virtual Network?

Reference: Under the "Communicate between Azure resources" section, it states, "You can deploy virtual machines and several other types of Azure resources to a virtual network... You can also connect virtual networks to each other, enabling resources in either virtual network to communicate with each other, using virtual network peering." This implies that by default, they are isolated.

Reference: Under the "Isolate resources" section, it states, "You can create multiple virtual networks within each Azure subscription and Azure region. Each virtual network is isolated from the others."

2. Microsoft Learn: What is Azure Resource Manager?

Reference: In the "Terminology" section, the definition for "resource group" is "A container that holds related resources for an Azure solution. The resource group includes those resources that you want to manage as a group." This definition focuses on management, not network boundaries.

3. Microsoft Learn: Lock resources to prevent unexpected changes

Reference: In the introduction, it states, "As an administrator, you may need to lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources." This confirms its purpose is to prevent changes, not to enforce network rules.

Question: 74

DRAG DROP Match the Azure Cloud Services benefit to the correct description. Instructions: To answer, drag the appropriate benefit from the column on the left to its description on the right. Each benefit may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Answer Options		Answer Area
Disaster recovery	Low latency	A cloud service that remains available after a disaster occurs.
Fault tolerance	Dynamic scalability	A cloud service that can be recovered after a disaster occurs.
		A cloud service that performs quickly when demand increases.
		A cloud service that can be accessed quickly over the Internet.

Answer:

Fault tolerance: A cloud service that remains available after a disaster occurs.

Disaster recovery: A cloud service that can be recovered after a disaster occurs.

Dynamic scalability: A cloud service that performs quickly when demand increases.

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Low latency: A cloud service that can be accessed quickly over the Internet.

Explanation:

This question tests your understanding of core cloud computing benefits.

- Fault tolerance is the principle of designing a system to continue operating without interruption even if some of its components fail. This directly corresponds to a service that remains available.
- Disaster recovery involves the policies and procedures to recover or continue vital technology infrastructure and systems following a natural or human-induced disaster.
- Dynamic scalability (or elasticity) is the cloud's ability to automatically add or remove compute resources to match demand, thus ensuring the service performs quickly when demand increases.
- Low latency refers to minimizing the delay in network communication. A network with low latency allows a service to be accessed quickly.

References:

Microsoft Azure Documentation, "Overview of the reliability pillar". This document distinguishes between high availability (achieved through fault tolerance) and disaster recovery. It states, "High availability is the ability of the application to continue running in a healthy state, without significant downtime... Disaster recovery is the ability to recover from rare but major incidents." This supports the distinction between a service remaining available (fault tolerance) and being recovered (disaster recovery).

Microsoft Azure Documentation, "Autoscaling guidance". Under the section "What is autoscaling?", it states, "Autoscaling is the process of dynamically allocating resources to match performance requirements. As the volume of work grows, an application may need additional resources to maintain the desired performance levels." This directly relates dynamic resource allocation to performance under increased demand.

Microsoft Azure Documentation, "Optimize network latency with Azure". This page explains, "Latency is a measure of the delay... Round-trip time (RTT) is a common measure of latency. Low latency is highly desirable and essential for a good user experience." This connects the concept of low latency to quick access and performance.

Question: 75

HOTSPOT 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
To implement a hybrid cloud model, a company must always migrate from a private cloud model.	<input type="radio"/>	<input type="radio"/>
A company can extend the computing resources of its internal network by using the public cloud.	<input type="radio"/>	<input type="radio"/>
In a public cloud model, only guest users at your company can access the resources in the cloud.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

Yes

No

Explanation:

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Statement 1 is false. A hybrid cloud is an environment that combines a public cloud and a private cloud by allowing data and applications to be shared between them. An organization can create a hybrid cloud by integrating its existing on-premises infrastructure with a public cloud, or by combining services from a private cloud provider and a public cloud provider. The migration path is not fixed; a company could begin with public cloud services and later integrate a private cloud.

Statement 2 is true. This practice is a key benefit of a hybrid cloud model, often referred to as cloud bursting. When an organization's private cloud or on-premises data center reaches maximum capacity, it can "burst" the overflow traffic and workload to the public cloud to access additional, scalable computing resources on demand.

Statement 3 is false. In a public cloud model, access is not restricted to guest users. Access to resources is controlled by the organization using identity and access management (IAM) policies. Authorized users can include employees, administrators, developers, and even external customers or partners, depending on how the services are configured. A public cloud's infrastructure is owned by a third-party provider and shared by multiple organizations over the internet.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (NIST Special Publication 800-145). National Institute of Standards and Technology.

Page 3, Section "Deployment Models": Defines Hybrid Cloud as "a composition of two or more distinct cloud infrastructures (private, community, or public)..." This definition implies combination, not a required migration path from private to public. It defines Public Cloud as being "provisioned for open use by the general public." This contradicts the idea that access is limited to only "guest users."

Microsoft Azure Documentation. (2024). What is hybrid cloud computing? Microsoft Learn.

"Common hybrid cloud scenarios" section: Describes how organizations "connect on-premises datacenter(s) to the public cloud and use the public cloud as an extension of the datacenter." This directly supports the second statement.

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., ... & Zaharia, M. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58.

<https://doi.org/10.1145/1721654.1721672>

Section 3.1, "Elasticity and the Illusion of Infinite Resources": The paper discusses the ability of cloud computing to provide "what appears to be infinite computing resources on demand," which is the principle behind extending an internal network's resources using the public cloud (cloud bursting).

Question: 76

What is guaranteed in an Azure Service Level Agreement (SLA) for virtual machines?

- A. uptime
- B. feature availability
- C. bandwidth
- D. performance

Answer:

A

Explanation:

An Azure Service Level Agreement (SLA) for Virtual Machines is a formal commitment from Microsoft regarding the availability and connectivity of the service. The core guarantee provided is uptime, which is expressed as a percentage (e.g., 99.9%, 99.95%, or 99.99%). This percentage represents the amount of time a virtual machine is guaranteed to have external connectivity. If Microsoft fails to meet this uptime guarantee, customers are eligible for service credits. The specific uptime percentage depends on the VM's configuration, such as whether it is a single instance, part of an Availability Set, or deployed across Availability Zones.

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Why Incorrect Options are Wrong:

- B. feature availability: SLAs guarantee the operational status of the core service, not the availability of specific or newly released features.
- C. bandwidth: While VM sizes have associated maximum network bandwidths, the SLA guarantees connectivity, not a specific minimum data transfer rate.
- D. performance: The SLA ensures the VM is running and accessible; it does not guarantee specific performance metrics like CPU speed or disk I/O operations per second (IOPS).

References:

1. Microsoft Azure Documentation, "SLA for Virtual Machines." This official document explicitly defines the guarantees in terms of uptime percentages. It states, "We guarantee you will have connectivity to at least one Virtual Machine at least 99.9% of the time," for specific single-instance configurations. The entire agreement is structured around uptime commitments for different deployment models.
Source: Microsoft Azure Legal Information, "SLA for Virtual Machines v1.9," Introduction and Uptime Guarantees sections.
2. Microsoft Learn, "Describe Azure service level agreements (SLAs)." In the module for AZ-900, this page explains that SLAs are "Microsoft's commitment for uptime and connectivity." It clarifies that a typical SLA specifies a performance-level commitment, such as an uptime of 99.9 percent.

Source: Microsoft Learn, Module: "Describe core Azure architectural components," Unit: "Describe Azure service level agreements (SLAs)."

Question: 77

HOTSPOT 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
Each Azure subscription can contain multiple account administrators.	<input type="radio"/>	<input type="radio"/>
Each Azure subscription can be managed by using a Microsoft account only.	<input type="radio"/>	<input type="radio"/>
An Azure resource group contains multiple Azure subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

No

Explanation:

An Azure subscription has only one Account Administrator, the individual responsible for billing. Management of a subscription is not restricted to Microsoft accounts; it can be performed by both personal Microsoft accounts and organizational work or school accounts within a Microsoft Entra ID tenant. The Azure management hierarchy is structured with subscriptions containing resource groups. A resource group exists within a single subscription and cannot contain subscriptions itself. It is a container for Azure resources like virtual machines and storage accounts.

References:

Microsoft. (n.d.). Classic subscription administrator roles, Azure roles, and Microsoft Entra roles.

Microsoft Learn. Retrieved September 5, 2025, from

<https://learn.microsoft.com/en-us/azure/role-based-access-control/classic-administrators>.

Reference Point: The section "Account Administrator" states, "There is only one Account Administrator per Azure account."

Microsoft. (n.d.). What is Azure Active Directory?. Microsoft Learn. Retrieved September 5, 2025, from

<https://learn.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-whatis>.

Reference Point: The "Terminology" section defines both "Work or school account" and "Microsoft account" as identity types that can be associated with a Microsoft Entra tenant, which is used to manage Azure subscriptions.

Microsoft. (n.d.). What is Azure Resource Manager?. Microsoft Learn. Retrieved September 5,

2025, from

<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/overview>.

Reference Point: The "Terminology" and "Scope" sections explicitly define the hierarchy where a subscription is a container for resource groups, and a resource group is a container for resources. A resource group must belong to a single subscription.

Question: 78

This question requires that you evaluate the underlined text to determine if it is correct. An Azure service is available to all Azure customers when it is in public preview. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. private preview
- C. development
- D. an Enterprise Agreement (EA) subscription

Answer:

A

Explanation:

The statement is correct. In the Azure service lifecycle, a public preview is a phase where a new service or feature is made available to all Azure customers. This allows the general public with an Azure subscription to evaluate the feature, provide feedback, and prepare for its official release. Services in public preview are offered under specific supplemental terms and typically do not include a service-level agreement (SLA). CertMage.com

Why Incorrect Options are Wrong:

- B. private preview: Services in a private preview are available only to a specific, invited set of customers, not to all Azure customers.
- C. development: This is an internal phase at Microsoft. Services in development are not available to any external customers.
- D. an Enterprise Agreement (EA) subscription: This is a type of Azure subscription or billing model, not a service lifecycle stage that determines general availability.

References:

1. Microsoft Learn. (2023). Describe the Azure service lifecycle. In "AZ-900: Describe core Azure concepts". "Public Preview means that an Azure feature is available to all Azure customers for evaluation purposes."
2. Microsoft Azure Documentation. (2023). Supplemental Terms of Use for Microsoft Azure Previews. Section: "PREVIEWS". This document outlines the terms under which preview services, including public previews accessible to all customers, are offered.
3. Microsoft Azure Documentation. (2023). Get started with Azure. Section: "Stay up to date". "Public previews are available to all Azure customers."

Question: 79

HOTSPOT 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
The Service Level Agreement (SLA) guaranteed uptime for paid Azure services is at least 99.9 percent.	<input type="radio"/>	<input type="radio"/>
Companies can increase the Service Level Agreement (SLA) guaranteed uptime by adding Azure resources to multiple regions.	<input type="radio"/>	<input type="radio"/>
Companies can increase the Service Level Agreement (SLA) guaranteed uptime by purchasing multiple subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

Explanation:

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Microsoft provides a financially backed Service Level Agreement (SLA) for most of its paid Azure services. The baseline SLA for the vast majority of these services is 99.9% uptime. While many services offer higher SLAs, especially with redundant configurations, 99.9% serves as a common minimum guarantee.

Deploying resources across multiple Azure regions is a key strategy for high availability and disaster recovery. This architectural pattern increases the overall application's availability. By combining SLAs of services deployed in independent regions, the resulting composite SLA is significantly higher than that of a single-region deployment, as it's statistically much less likely for two separate regions to fail simultaneously.

An Azure subscription is primarily a unit for billing and management. It provides a logical boundary for resources. Purchasing multiple subscriptions does not, in itself, increase the SLA of the services within them. The SLA is determined by the architecture of the deployed resources (e.g., using availability zones, multiple regions), not by the number of subscriptions used to contain them.

References:

Microsoft Azure Documentation: "Service Level Agreements summary." This document provides an overview of the SLAs for various Azure services, showing that paid services generally start at a 99.9% guarantee. It also explains how combining services into a resilient architecture (e.g., across regions) can result in a higher, composite SLA.

Source: Microsoft Azure Official Documentation. Refer to the "Summary of SLAs for Azure services" section.

Microsoft Azure Documentation: "What are Azure subscriptions?" This documentation defines a subscription as a management, billing, and scale boundary. It makes no mention of subscriptions as a factor for increasing service uptime or SLAs.

Source: Microsoft Azure Official Documentation, "Azure fundamentals" learning path.

Armijo, K., & Sano, S. (2021). Penetration Testing Azure for Ethical Hackers. Packt Publishing.

Reference: Chapter 1, "Azure Fundamentals for Ethical Hackers," discusses subscriptions as logical containers for resources primarily for organization and billing, distinct from architectural components like regions or availability zones that influence SLAs.

Question: 80

HOTSPOT 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
A Standard support plan is included in an Azure free account.	<input type="radio"/>	<input type="radio"/>
A Premier support plan can only be purchased by companies that have an Enterprise Agreement (EA).	<input type="radio"/>	<input type="radio"/>
Support from MSDN forums is only provided to companies that have a pay-as-you-go subscription.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

No

Explanation:

A Standard support plan is included in an Azure free account. This is false. All Azure accounts, including the free tier, come with the Basic support plan by default. The Standard plan is a paid upgrade that provides enhanced technical support.

A Premier support plan can only be purchased by companies that have an Enterprise Agreement (EA). This is false. While Premier support (now succeeded by Microsoft Unified Support) is designed for large enterprises that often have an EA, it is not an exclusive prerequisite. Other large customers with different volume licensing agreements or direct contracts could also purchase this level of support.

Support from MSDN forums is only provided to companies that have a pay-as-you-go subscription. This is false. The MSDN forums, now known as Microsoft Q&A, are public community forums. Support is provided by community members and Microsoft engineers to anyone with a Microsoft account, regardless of their Azure subscription type (including free, pay-as-you-go, or enterprise).

References:

Microsoft Azure Documentation. "Azure support plans." This official page details the features of each support plan. It explicitly states that the Basic plan is included with all Microsoft Azure subscriptions, while Standard, Professional Direct, and Unified Support are paid options.

Microsoft Azure Documentation. "Azure Support Plans FAQ." Under the "Community support" section, it clarifies that "Microsoft Q&A is Azure's preferred destination for community support," and it is available to all users. This contradicts the claim that forums are limited to a specific subscription type.

Microsoft Q&A Documentation. "Microsoft Q&A - Frequently asked questions (FAQ)." This document confirms that "Anyone can browse Microsoft Q&A content," and participation requires a free Microsoft account. This shows the platform is open to all, not restricted by subscription.

Question: 81

Your company plans to migrate to Azure. The company has several departments. All the Azure resources used by each department will be managed by a department administrator. You need to recommend an Azure deployment that provides the ability to segment Azure for the departments. What are two possible techniques to segment Azure for the departments? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. multiple subscriptions
- B. multiple Azure Active Directory (Azure AD) directories
- C. multiple regions
- D. multiple resource groups

Answer:

A, D

Explanation:

Azure provides a hierarchical structure for organizing resources. The two primary techniques for segmenting resources for different departments are subscriptions and resource groups.

Creating multiple subscriptions provides a strong boundary for management, billing, and policy. Each department can have its own subscription, and a department administrator can be granted owner-level permissions at the subscription scope.

Alternatively, within a single subscription, multiple resource groups can be created. A resource group is a logical container for resources. Each department can be assigned one or more resource groups, and an administrator can be delegated permissions specifically for those groups using Role-Based Access Control (RBAC).

Why Incorrect Options are Wrong:

- B. multiple Azure Active Directory (Azure AD) directories: This creates separate identity and access management tenants, which is overly complex and not designed for segmenting departments within a single organization.
- C. multiple regions: Regions are geographic datacenters for deploying resources to optimize for latency or meet data residency requirements; they do not serve as an administrative or organizational boundary.

References:

1. Microsoft Learn, "Describe Azure management infrastructure": In the unit "What are Azure subscriptions and management groups?", it states, "Subscriptions are a unit of management, billing, and scale." This confirms that subscriptions are a primary tool for creating administrative and billing boundaries, suitable for departments.

2. Microsoft Learn, "Describe Azure management infrastructure": In the unit "What are Azure resource groups?", it explains, "A resource group is a logical container for resources deployed on Azure... Resource groups are also a scope for applying role-based access control (RBAC) permissions." This supports using resource groups to group departmental assets and delegate administrative control.
3. Microsoft Cloud Adoption Framework for Azure, "Organize your Azure resources effectively": This document outlines resource organization strategies. In the "Subscription design" section, it details how subscriptions serve as "boundaries for policy assignment" and "administrative boundaries," reinforcing their use for departmental segmentation.
4. Microsoft Cloud Adoption Framework for Azure, "Resource organization design area": This section discusses the hierarchy and states, "Use resource groups as a container to group resources for an application or a service... to manage and delegate access." This directly supports the use of resource groups for departmental management.

Question: 82

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

Statements	Yes	No
All Azure services in private preview must be accessed by using a separate Azure portal.	<input type="radio"/>	<input type="radio"/>
Azure services in public preview can be used in production environments.	<input type="radio"/>	<input type="radio"/>
Azure services in public preview are subject to a Service Level Agreement (SLA).	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: No

Statement 2: No

Statement 3: No

Explanation:

All Azure services in private preview must be accessed by using a separate Azure portal. This is incorrect. While some previews may use a different URL (like preview.portal.azure.com), access to a private preview is typically enabled directly for a specific Azure subscription. Once enabled, the preview features appear in the standard Azure portal for the authorized user. It does not universally require a separate portal.

Azure services in public preview can be used in production environments. This is incorrect. Microsoft's terms for preview services explicitly state they are not intended for production workloads. Previews are provided "as-is," may have bugs, can undergo breaking changes, and are not covered by standard support agreements. Therefore, they are unsuitable for production environments that require stability and support.

Azure services in public preview are subject to a Service Level Agreement (SLA). This is incorrect. Services in either private or public preview are explicitly excluded from Azure's Service Level Agreements (SLAs). An SLA, which guarantees a certain level of performance and availability, only applies to services that have reached General Availability (GA).

References:

Microsoft Azure Documentation, "Supplemental Terms of Use for Microsoft Azure Previews." This legal document states: "PREVIEWS ARE PROVIDED 'AS-IS,' 'WITH ALL FAULTS,' AND 'AS AVAILABLE,' AND ARE EXCLUDED FROM THE SERVICE LEVEL AGREEMENTS AND ANY LIMITED WARRANTY." This directly refutes statements 2 and 3.

Microsoft Azure Documentation, "Get a sneak peek at new services with Azure preview features." This document explains that public previews are available to all customers but are not yet GA. It notes, "Preview features aren't meant for production use." This supports the answer for statement 2.

Microsoft Azure Documentation, "What are Azure Previews?" This resource describes the different types of previews. It clarifies that private previews are available only to specific customers invited by the product team, and access is managed via subscription, not necessarily a separate portal. This addresses statement 1.

Question: 83

This question requires that you evaluate the underlined text to determine if it is correct. You deploy an Azure resource. The resource becomes unavailable for an extended period due to a service outage. Microsoft will automatically refund your bank account. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. automatically migrate the resource to another subscription
- C. automatically credit your account
- D. send you a coupon code that you can redeem for Azure credits

Answer:

C

Explanation:

Microsoft's Service Level Agreements (SLAs) for Azure services guarantee specific levels of uptime and performance. If Microsoft fails to meet these guarantees, the customer is eligible for compensation. This compensation is provided in the form of service credits, which are applied to the customer's Azure account to offset the cost of future services. The process is not a cash refund to a bank account. While the term "automatically" is a simplification, as customers typically need to submit a claim, the core correction is changing the compensation method from a "refund" to a "credit."

Why Incorrect Options are Wrong:

- A. No change is needed.

This is incorrect. Microsoft provides service credits as compensation for SLA breaches, not cash refunds to a bank account.

- B. automatically migrate the resource to another subscription

This is incorrect. Migrating a resource is a technical action related to management or disaster recovery, not a form of financial compensation for an SLA breach.

- D. send you a coupon code that you can redeem for Azure credits

This is incorrect. While a coupon is a form of credit, the standard SLA remedy is a direct service credit applied against the customer's future Azure bills, not a redeemable code.

References:

1. Microsoft Azure Legal Information, "SLA summary for Azure services." In the introduction, it states: "We provide service credits as remedies for failing to meet our service level standards." This confirms that the compensation is in the form of credits, not cash refunds.

Source: Microsoft Corporation. (2024). SLA summary for Azure services. Retrieved from <https://azure.microsoft.com/en-us/support/legal/sla/summary/>

2. Microsoft Learn, "Describe Azure Service Level Agreements (SLAs)." This AZ-900 learning path module explains the concept of SLAs. It states: "If a service fails to meet the guarantees, a percentage of the monthly service fees can be credited to you." This explicitly mentions a credit, not a refund.

Source: Microsoft Learn. (2024). Describe Azure Service Level Agreements (SLAs), Module: "Describe core Azure architectural components". Section: "What are SLAs?".

3. Microsoft Azure Legal Information, "Service Level Agreement for Azure Services." This detailed document outlines the terms. Under the "Claims" section, it specifies the process: "In order for Microsoft to consider a claim, Customer must submit the claim..." This clarifies that the process is not fully automatic. Under the "Service Credits" section, it states: "Service Credits are Customer's sole and exclusive remedy... Service Credits will be applied against future payments..."

Source: Microsoft Corporation. (2023, October 1). Service Level Agreement for Azure Services. Page 1, Sections: "Claims" and "Service Credits".

Question: 84

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

Statements	Yes	No
In Azure Active Directory Premium, at least 99.9 percent availability is guaranteed.	<input type="radio"/>	<input type="radio"/>
The Service Level Agreement (SLA) for Azure Active Directory Basic is the same as the SLA for Azure Active Directory Free.	<input type="radio"/>	<input type="radio"/>
All paying Azure customers can claim a credit if their monthly uptime percentage is below the guaranteed amount in the Service Level Agreement (SLA).	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

Yes: Microsoft guarantees a 99.99% uptime for Azure Active Directory (Azure AD) Premium.

Since 99.99% is greater than 99.9%, the statement that "at least 99.9 percent availability is guaranteed" is true.

No: The Azure AD Free tier comes with no financially backed SLA. In contrast, the Azure AD Basic tier has a 99.9% SLA. Because their SLAs are different (one exists, the other does not), the statement is false.

Yes: The core purpose of a financially backed Azure SLA is to provide service credits to paying customers if Microsoft does not meet the published uptime commitment for a specific service.

This allows customers to claim a percentage of their monthly service fees back.

References:

Microsoft Azure Documentation. (2023, September 20). SLA for Azure Active Directory (Azure AD). Retrieved September 5, 2025. In the "SLA Details" section, it specifies the guaranteed uptime percentages: "For Azure Active Directory (Azure AD) Premium... we guarantee at least 99.99% availability," and "For the Azure Active Directory (Azure AD) Basic service tier, we guarantee at least 99.9% availability." It also states, "The Free edition of Azure AD does not provide an SLA."

Microsoft Azure Documentation. (2024, August 28). SLA summary for Azure services. Retrieved

September 5, 2025. This document provides a general overview, stating in its introduction that SLAs "describe Microsoft's commitment to providing Azure customers with a specific level of service, and they are part of the terms and conditions of the Microsoft Online Services." The individual SLA pages, like the one for Azure AD, detail the specific service credits available.

Question: 85

Your company has 10 offices. You plan to generate several billing reports from the Azure portal. Each report will contain the Azure resource utilization of each office. Which Azure Resource Manager feature should you use before you generate the reports?

- A. tags
- B. templates
- C. locks
- D. policies

Answer:

A

Explanation:

Tags are metadata elements that you apply to your Azure resources. They are key-value pairs that help you identify resources based on settings that are relevant to your organization. For the purpose of billing, you can apply a tag to each resource that identifies which of the 10 offices it belongs to (e.g., Office: "London"). Subsequently, when using Azure Cost Management + Billing, you can filter or group the cost analysis reports by this tag. This allows you to generate specific reports that show the resource utilization and associated costs for each individual office, fulfilling the requirement.

Why Incorrect Options are Wrong:

- B. templates: Azure Resource Manager (ARM) templates are used to define and deploy infrastructure as code; they do not organize existing resources for billing reports.
- C. locks: Resource locks are a governance feature used to prevent accidental deletion or modification of resources, and they have no role in cost categorization or reporting.
- D. policies: Azure Policy is used to enforce rules and standards on resources, such as requiring a tag to be present, but it is the tag itself, not the policy, that is used for filtering billing data.

References:

1. Microsoft Learn. "Use tags to organize your Azure resources and management hierarchy." Microsoft Docs, Azure, Cloud Adoption Framework. "You can use tags to group your billing data. For example, if you're running multiple VMs for different organizations, use the tags to group usage by cost center... You can also use tags to categorize costs by runtime environment, such as the billing usage for VMs running in the production environment."
2. Microsoft Learn. "Group and filter resources in cost analysis." Microsoft Docs, Azure, Cost Management. Under the "Group and filter options" section, "Tag" is listed as a primary property by which you can group costs. The documentation states, "Use grouping and filtering options to

focus on a subset of your cost data."

3. Microsoft Learn. "AZ-900: Describe features and tools in Azure for governance and compliance." Microsoft Learn, Module: Describe features and tools for governance and compliance in Azure, Unit 3: Describe the purpose of Azure tags. "Tags are a crucial part of an organizing strategy... A common use for tags is to associate a cost center with resources for internal chargeback."

Question: 86

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

Statements	Yes	No
If your company uses an Azure free account, you will only be exposed to a subset of Azure services.	<input type="radio"/>	<input checked="" type="radio"/>
All Azure free accounts expire after a specific period.	<input checked="" type="radio"/>	<input type="radio"/>
You can create up to 10 Azure free accounts by using the same Microsoft account.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

Yes

No

Explanation:

Exposure to Azure Services: An Azure free account provides access to the entire portfolio of Azure services. While only certain services are free for 12 months, and others are "always free" within specified limits, you are not prevented from seeing or using any service. If you use a service not covered by the free offer, the costs are deducted from your initial credit, or you will be billed after upgrading to a pay-as-you-go subscription. Therefore, you are exposed to all services, not just a subset.

Account Expiration: The promotional benefits of an Azure free account are time-limited. The \$200 credit expires after 30 days, and access to the larger pool of free services expires after 12 months. After this period, the "free account" promotional offer ends, and the account must be upgraded to a pay-as-you-go subscription to continue using most services. Thus, the free account offer itself expires.

Account Creation Limit: The Azure free account offer is strictly limited to one account per new customer. This is enforced using details like phone number, credit card, and Microsoft account identity. Attempting to create multiple free accounts with the same information is a violation of the terms of use.

References:

Microsoft Azure Documentation, "Azure free account FAQ":

Regarding Service Exposure (Statement 1): The FAQ page details that the free account provides a USD200 credit "to spend on any Azure service for the first 30 days," implying access to all services. It doesn't state that access is limited to a subset.

Regarding Expiration (Statement 2): The FAQ section "What happens after I use my free credits or 12 months is over?" explains that the 12-month free services and 30-day credit have a defined end date, after which a user must upgrade to pay-as-you-go.

Regarding Account Limits (Statement 3): Under the question "Am I eligible for an Azure free account?", the documentation states, "Use of Azure Free Account is limited to one per new customer."

Question: 87

You attempt to create several managed Microsoft SQL Server instances in an Azure environment and receive a message that you must increase your Azure subscription limits. What should you do to increase the limits?

- A. Create a service health alert
- B. Upgrade your support plan
- C. Modify an Azure policy
- D. Create a new support request

Answer:

D

Explanation:

Azure subscriptions have default limits, known as quotas, on the number of resources that can be deployed. This is to prevent unexpected costs and to help Microsoft manage capacity. When you reach a quota limit, as in the scenario with SQL Managed Instances, the standard and required procedure to raise that limit is to create a support request in the Azure portal. You must select the "Service and subscription limits (quotas)" issue type for the request. Microsoft then reviews the request and increases the quota if approved.

Why Incorrect Options are Wrong:

- A. A service health alert notifies you about the status of Azure services; it does not manage your subscription's resource limits.
- B. Upgrading a support plan provides enhanced support services and faster response times but does not automatically increase subscription quotas.
- C. Azure Policy is a governance tool used to enforce rules on resources, such as restricting deployments, not for increasing Microsoft-imposed subscription limits.

References:

1. Microsoft Learn. "Azure subscription and service limits, quotas, and constraints." Under the section "Requesting limit increases," it states, "You can request a limit increase through the Azure portal... To request a limit increase, create an Azure support request."
2. Microsoft Learn. "Request quota increases for Azure SQL Database and SQL Managed Instance." This document details the specific process for the resource in the question, stating in Step 2, "For Issue type, select Service and subscription limits (quotas)."
3. Microsoft Learn. "Create an Azure support request." This guide outlines the general process for creating any support request, and under the "Basics" tab section, it shows that "Service and subscription limits (quotas)" is a primary issue type.

Question: 88

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

Statements	Yes	No
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An Azure service in private preview is released to all Azure customers.

An Azure service in public preview is released to all Azure customers.

An Azure service in general availability is released to a subset of Azure customers.

Answer:

No

Yes

No

Explanation:

Azure services progress through distinct release phases. A private preview is an invitation-only program offered to a specific, limited set of customers to gather feedback. A public preview makes the service available to all Azure customers through the Azure portal, allowing anyone to evaluate the new feature. However, services in public preview may have limitations and are typically not covered by a Service Level Agreement (SLA). Finally, General Availability (GA) marks the full, production-ready release of a service to all customers, complete with support and official SLAs. Therefore, a GA service is available to everyone, not just a subset.

References:

Microsoft Azure Documentation, "Supplemental Terms of Use for Microsoft Azure Previews". This document outlines the conditions for preview services, distinguishing between private and public previews. It implicitly confirms private previews are for "specific Azure customers" invited by Microsoft, while public previews are more broadly available.

Microsoft Learn, "Describe features and tools in Azure for governance and compliance". Under the "Describe the purpose of Azure preview features and how to access them" section, it states, "Public Previews are available to all Azure customers," which directly supports the answer to the second statement.

Microsoft Azure Blog, "Azure Updates". Announcements for General Availability (e.g., "Now generally available: ...") consistently imply a full release to the entire customer base for production use, contrasting with the limited nature of previews. This supports the reasoning that GA is not for a subset of customers.

Question: 89

This question requires that you evaluate the underlined text to determine if it is correct. After you create a virtual machine, you need to modify the network security group (NSG) to allow connections from TCP port 8080. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. virtual network gateway
- C. virtual network
- D. route table

Answer:

A

Explanation:

The statement is correct. An Azure Network Security Group (NSG) is the fundamental component used to filter network traffic to and from Azure resources within an Azure Virtual Network. To control access to a virtual machine on a specific port, you must create an inbound security rule within the NSG associated with either the virtual machine's network interface or its subnet. This rule would specify the protocol (TCP), the destination port (8080), and the allowed source to permit the connection.

Why Incorrect Options are Wrong:

A virtual network gateway is used to send encrypted traffic between an Azure virtual network and other networks (e.g., on-premises), not for port-level filtering on a VM.

A virtual network is the private network space in Azure where resources reside; however, the NSG is the specific component within it that you modify for traffic filtering.

A route table controls where network traffic is directed (the path it takes), but it does not allow or deny traffic based on port numbers.

References:

1. Microsoft Learn. "Network security groups." Azure Virtual Network documentation. "A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources. For each rule, you can specify source and destination, port, and protocol."
2. Microsoft Learn. "Virtual network traffic routing." Azure Virtual Network documentation. "Azure automatically creates a route table for each subnet... You can create custom route tables that override Azure's default routing... A route table contains a set of rules, called routes, that specifies

how packets should be routed in a virtual network."

3. Microsoft Learn. "What is VPN Gateway?" Azure VPN Gateway documentation. "An Azure virtual network gateway is a specific type of virtual network gateway that sends encrypted traffic between an Azure virtual network and an on-premises location over the public internet."

Question: 90

This question requires that you evaluate the underlined text to determine if it is correct. Azure Germany can be used by legal residents of Germany only. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. no change is needed
- B. only enterprises that are registered in Germany
- C. only enterprises that purchase their azure licenses from a partner based in Germany
- D. any user or enterprise that requires its data to reside in Germany

Answer:

D

Explanation:

The primary purpose of Azure's German datacenter regions is to provide data residency. This means customer data is stored exclusively in Germany, helping customers meet specific regulatory, compliance, or data sovereignty requirements. Eligibility is therefore based on the need for data to reside in Germany, not on the nationality of the user or the registration location of the enterprise. Any user or organization, regardless of their location, can use the German regions if they have a requirement to keep their data within German borders.

Why Incorrect Options are Wrong:

- A. no change is needed: This is incorrect because access is not restricted to legal residents of Germany; it is available to a much broader customer base with data residency needs.
- B. only enterprises that are registered in Germany: This is incorrect as multinational corporations or entities from other countries can use Azure Germany to serve their German customers or meet regional data laws.
- C. only enterprises that purchase their azure licenses from a partner based in Germany: This is incorrect because the method of license acquisition is a commercial arrangement and does not determine eligibility to use a specific Azure region.

References:

1. Microsoft Azure Documentation, "Azure geographies": Under the "Europe" section, the description for Germany West Central and Germany North states, "Azure is available in two new regions in Germany, offering data residency for customer data in Germany...". This confirms the primary driver for using these regions is data residency.

Source: Microsoft Azure, "Azure geographies," Europe section.

2. Microsoft Azure Documentation, "What is Azure Germany?": This document, describing the

legacy sovereign cloud, clarifies its purpose: "Microsoft Cloud Germany provides a separate instance of Microsoft Azure services from within German datacenters... It addresses the needs of the most security-conscious customers in Germany, the European Union (EU), and the European Free Trade Association (EFTA) who need to comply with strict data-handling regulations." This highlights the compliance and data residency motivation, which is not limited to German residents or companies.

Source: Microsoft Docs, "What is Azure Germany?".

3. Microsoft Learn, AZ-900: Describe core architectural components of Azure, "Describe Azure geography and regions": The module explains that specialized regions (sovereign regions) exist "to meet compliance or legal requirements." This supports the concept that the need for compliance, such as data residency, is the determining factor for using such a region.

Source: Microsoft Learn, Module "Describe core architectural components of Azure," Unit "Describe Azure geography and regions."

Question: 91

This question requires that you evaluate the underlined text to determine if it is correct. If a resource group named RG1 has a delete lock, only a member of the global administrators group can delete RG1. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. the delete lock must be removed before an administrator can delete RG1.
- C. an Azure policy must be modified before an administrator can delete RG1.
- D. an Azure tag must be added before an administrator can delete RG1.

Answer:

B

Explanation:

An Azure resource lock with the CanNotDelete level prevents all users from deleting the resource, regardless of their permissions assigned through Azure role-based access control (RBAC). This includes administrators, owners, and global administrators. To delete the resource group, a user with the necessary permissions (such as Owner or User Access Administrator) must first remove the lock. Once the lock is removed, the resource group can be deleted by any user who has the required delete permissions for that scope.

Why Incorrect Options are Wrong:

- A. No change is needed: This is incorrect because a delete lock applies to all users, including global administrators, preventing them from deleting the resource until the lock is removed.
- C. an Azure policy must be modified before an administrator can delete RG1: This is incorrect. Azure Policy is used for enforcing organizational standards and governance, not for managing individual resource locks. Locks and policies are separate features.
- D. an Azure tag must be added before an administrator can delete RG1: This is incorrect. Azure Tags are metadata used for organizing and managing resources. They do not affect permissions or the ability to delete a resource.

References:

1. Microsoft Learn. "Lock resources to prevent unexpected changes." Microsoft Docs. In the "Lock inheritance" section, it is clarified that locks apply to all users and roles. The "Permissions" section states, "To create or delete management locks, you must have access to Microsoft.Authorization/locks/ actions." The main overview explains that to delete a locked

resource, you must first remove the lock.

2. Microsoft Learn. "Overview of Azure Policy." Microsoft Docs. This document describes Azure Policy as a service for creating, assigning, and managing policies that enforce rules over your resources, which is distinct from the function of resource locks.

3. Microsoft Learn. "Use tags to organize your Azure resources and management hierarchy." Microsoft Docs. This document explains that tags are key-value pairs for organizing resources and do not provide any access control or operational restrictions like locks.

Question: 92

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

Statements	Yes	No
Authorization to access Azure resources can be provided only to Azure Active Directory (Azure AD) users.	<input type="radio"/>	<input checked="" type="radio"/>
Identities stored in Azure Active Directory (Azure AD), third-party cloud services, and on-premises Active Directory can be used to access Azure resources.	<input checked="" type="radio"/>	<input type="radio"/>
Azure has built-in authentication and authorization services that provide secure access to Azure resources.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

Yes

Yes

Explanation:

No: Authorization in Azure is not restricted solely to native Azure AD users. Azure supports various identity types, including guest users from other tenants (B2B collaboration), consumer identities (B2C), and identities from on-premises Active Directory synced or federated through Azure AD Connect. Service principals and managed identities, which are non-user identities, can also be authorized.

Yes: Azure provides comprehensive identity integration. It natively uses identities from Azure AD. Through hybrid identity solutions like Azure AD Connect, it allows identities from on-premises Active Directory to be used. Furthermore, Azure AD's external identities feature allows for federation with third-party services (like Google or other SAML/WS-Fed identity providers) and collaboration with users from other organizations.

Yes: Microsoft Azure has foundational, built-in services for managing access. Azure Active Directory (now Microsoft Entra ID) serves as the primary authentication service, verifying the identity of users, services, and devices. Azure Role-Based Access Control (RBAC) is the built-in authorization system that manages what authenticated principals are permitted to do with specific Azure resources.

References:

- Microsoft. (n.d.). What is Azure role-based access control (Azure RBAC)? Microsoft Learn. Retrieved from learn.microsoft.com/en-us/azure/role-based-access-control/overview. (This document explains that roles can be assigned to users, groups, service principals, and managed identities, not just native Azure AD users).
- Microsoft. (n.d.). What is hybrid identity with Azure Active Directory? Microsoft Learn. Retrieved from learn.microsoft.com/en-us/azure/active-directory/hybrid/whatis-hybrid-identity. (This source details how on-premises Active Directory can be integrated with Azure AD to provide users with a common identity for accessing both cloud and on-premises resources).
- Microsoft. (n.d.). External Identities in Azure Active Directory. Microsoft Learn. Retrieved from learn.microsoft.com/en-us/azure/active-directory/external-identities/external-identities-overview. (This documentation describes B2B collaboration, B2B direct connect, and Azure AD B2C, which allow access for users and customers outside an organization).
- Microsoft. (n.d.). Authentication vs. authorization. Microsoft Learn. Retrieved from learn.microsoft.com/en-us/azure/active-directory/develop/authentication-vs-authorization. (This article clarifies the distinct roles of authentication, handled by Azure AD, and authorization, managed by services like Azure RBAC, as built-in components of the platform).

Question: 93

Your company plans to migrate all on-premises data to Azure. You need to identify whether Azure complies with the company's regional requirements. What should you use?

- A. the Knowledge Center
- B. Azure Marketplace
- C. the Azure portal
- D. the Trust Center

Answer:

D

Explanation:

The Microsoft Trust Center is the primary, centralized resource for obtaining information about Microsoft's security, privacy, and compliance practices. It provides detailed documentation, audit reports, and information about how Azure complies with a vast array of international, regional, and industry-specific standards. This allows organizations to verify that Azure meets their specific regional and business requirements before migrating their data.

Why Incorrect Options are Wrong:

CertMage.com

- A. the Knowledge Center: This is a generic term. While Microsoft has knowledge bases, the "Trust Center" is the specific, branded resource for compliance and security information.
- B. Azure Marketplace: The Azure Marketplace is an online store for applications and services from Microsoft and third-party partners that are certified to run on Azure, not a resource for platform compliance.
- C. the Azure portal: The Azure portal is the management interface for creating, managing, and monitoring Azure resources. It is not the primary source for documentation on Azure's platform-level compliance certifications.

References:

1. Microsoft Learn. "Describe the Microsoft Trust Center." AZ-900: Describe security, privacy, compliance, and trust in Azure. Microsoft, n.d. Accessed May 20, 2024. In the "Describe the Microsoft Trust Center" unit, it states, "The Microsoft Trust Center is a website that contains information and details about how Microsoft implements and supports security, privacy, compliance, and transparency in all Microsoft cloud products and services."
2. Microsoft Trust Center. "Compliance." Microsoft, n.d. Accessed May 20, 2024. The homepage explicitly states, "The Microsoft Trust Center is your resource for information on security, privacy, compliance, and transparency." The "Compliance" section provides access to compliance offerings and reports by region and country.

3. Microsoft Learn. "What is the Trust Center?" Microsoft Service Trust Portal and Trust Center for Microsoft 365. Microsoft, n.d. Accessed May 20, 2024. This document clarifies, "The Trust Center is a public-facing website that provides information about security, privacy, and compliance for Microsoft's cloud services."

Question: 94

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

Statements	Yes	No
From Azure Service Health, an administrator can view the health of all the services deployed to an Azure environment and all the other services available in Azure.	<input type="radio"/>	<input type="radio"/>
From Azure Service Health, an administrator can create a rule to be alerted if an Azure service fails.	<input type="radio"/>	<input type="radio"/>
From Azure Service Health, an administrator can prevent a service failure from affecting a specific virtual machine.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

Explanation:

CertMage.com

View Health of All Services (Yes): Azure Service Health provides a personalized view of the health of Azure services and regions that you are using. However, it also allows administrators to view the status of any Azure service in any region, not just the ones they have deployed resources in, by adjusting the filters for service and region. The Azure Status page provides a global view, and Service Health offers a more targeted but comprehensive view within the portal.

Create Alerts (Yes): A key feature of Azure Service Health is the ability to configure service health alerts. These alerts proactively notify administrators via email, SMS, push notifications, webhooks, or other automated actions (like ITSM integration) when their services are affected by Azure service issues, planned maintenance, or health advisories.

Prevent Service Failures (No): Azure Service Health is a monitoring and notification service. It provides information and alerts about service issues but does not offer controls to prevent a failure from occurring or affecting a resource like a virtual machine. Preventing impact from failures is achieved through architectural design, such as implementing redundancy using Availability Sets or Availability Zones, not through the Service Health tool itself.

References:

Microsoft Azure Documentation - Azure Service Health:

"Azure Service Health is a suite of experiences that provide personalized guidance and support when issues with Azure services affect you... Service Health helps you understand the impact of issues and keeps you informed as they are resolved." This confirms its role as an informational tool.

"Service Health allows you to view ongoing service issues, upcoming planned maintenance, and relevant health advisories." This supports the first statement's claim about viewing service health.

Microsoft Azure Documentation - Create activity log alerts on service notifications:

"This article shows you how to set up activity log alerts for service health notifications by using the Azure portal... You can configure an alert to notify you by... Email/SMS/Push/Voice... or trigger automated actions like Webhook, Automation Runbook, Logic App, Azure Function, ITSM." This directly confirms the second statement.

Question: 95

HOTSPOT You plan to implement several security services for an Azure environment. You need to identify which Azure services must be used to meet the following security requirements: Monitor threats by using sensors Enforce azure Multi-Factor Authentication (MFA) based on a condition Which Azure service should you identify for each requirement? To answer, select the appropriate option in the answer area. NOTE: Each correct selection is worth one point.

Monitor threats by using sensors:

Azure Monitor
Azure Security Center
Azure Active Directory (Azure AD) Identity Protection
Azure Advanced Threat Protection (ATP)

Enforce Azure MFA based on a condition:

Azure Monitor
Azure Security Center
Azure Active Directory (Azure AD) Identity Protection
Azure Advanced Threat Protection (ATP)

Answer:

Azure Advanced Threat Protection (ATP)

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Azure Active Directory (Azure AD) Identity Protection

Explanation:

Azure Advanced Threat Protection (ATP), now known as Microsoft Defender for Identity, is specifically designed to use sensors installed on on-premises domain controllers. These sensors monitor domain controller network traffic and security events to detect and investigate advanced threats, compromised identities, and malicious insider actions. This direct use of sensors for threat monitoring makes it the most precise answer.

Azure AD Identity Protection is the service that detects identity-based risks, such as suspicious sign-in locations or leaked credentials. These detected risks serve as conditions for policy enforcement. Organizations can configure user risk and sign-in risk policies within Identity Protection to automatically require a user to perform multi-factor authentication (MFA) when a specific risk level is detected, thereby enforcing MFA based on a condition.

References:

Microsoft Documentation, "What is Microsoft Defender for Identity?": "Microsoft Defender for Identity ... monitors your domain controllers by capturing and parsing network traffic and leveraging Windows events directly from your domain controllers, then analyzes the data for attacks and threats. ... The Defender for Identity sensor is installed directly on your domain controllers." This source confirms that Azure ATP (Defender for Identity) uses sensors for monitoring.

Microsoft Documentation, "Microsoft Defender for Identity architecture": This document provides an architectural diagram explicitly showing "Defender for Identity sensors" installed on domain controllers and forwarding data to the Defender for Identity cloud service. This reinforces the sensor-based approach of the service.

Microsoft Documentation, "What is Identity Protection?": In the "Risk policies" section, it states, "Identity Protection allows organizations to configure risk-based policies that automatically respond to detected issues. These policies...can automatically block or initiate remediation actions including password resets and multifactor authentication enforcement." This directly links Identity Protection to enforcing MFA based on the condition of detected risk.

Microsoft Documentation, "How To: Configure the sign-in risk policy": This guide details the steps for setting up a policy in Azure AD Identity Protection. Step 5 is "Under Controls Access, choose Allow access, and then select Require multifactor authentication." This provides a direct, procedural link between a detected condition (sign-in risk) and the enforcement of MFA.

Question: 96

You need to configure an Azure solution that meets the following requirements: Secures websites from attacks Generates reports that contain details of attempted attacks What should you include in the solution?

- A. Azure Firewall
- B. a network security group (NSG)
- C. Azure Information Protection
- D. DDoS protection

Answer:

D

Explanation:

Azure DDoS Protection is a service designed specifically to protect Azure resources, including websites, from the impact of Distributed Denial of Service (DDoS) attacks. The Standard tier of this service meets both requirements precisely. It provides sophisticated mitigation against volumetric and protocol attacks, thus securing the website. Crucially, it also offers advanced features like attack analytics, metrics, and detailed post-attack mitigation reports. These reports provide comprehensive details about the attack traffic, the actions taken to mitigate it, and forensic information, directly fulfilling the requirement to generate reports on attempted attacks.

Why Incorrect Options are Wrong:

- A. Azure Firewall: While it provides network protection, it is a general-purpose firewall. It lacks the specialized, detailed attack analytics and reporting for DDoS attacks that the question requires.
- B. a network security group (NSG): An NSG is a basic, stateful firewall that filters traffic by port, protocol, and IP address. It does not offer advanced attack detection or detailed reporting on attack attempts.
- C. Azure Information Protection: This service is used for classifying and protecting documents and emails (data), not for securing websites or infrastructure from network-based attacks.

References:

1. Azure DDoS Protection: Microsoft Learn. (2023). Describe Azure DDoS Protection. In "Describe Azure security features (AZ-900)," Module 2, Unit 5. "Azure DDoS Protection Standard provides enhanced DDoS mitigation features... Key features of the DDoS Protection Standard tier include... Attack analytics, metrics, and alerting. Attack mitigation reports."
2. Azure Firewall: Microsoft Docs. (2023). What is Azure Firewall? "Azure Firewall is a managed, cloud-based network security service that protects your Azure Virtual Network resources... It uses a static public IP address for your virtual network resources allowing outside firewalls to identify

traffic originating from your virtual network."

3. Network Security Groups: Microsoft Docs. (2023). Network security groups. "A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources."

4. Azure Information Protection: Microsoft Docs. (2023). What is Azure Information Protection (AIP)? "Azure Information Protection (AIP) is a cloud-based solution that enables organizations to discover, classify, and protect documents and emails by applying labels to content."

Question: 97

You have a virtual machine named VM1 that runs Windows Server 2016. VM1 is in the East US Azure region. Which Azure service should you use from the Azure portal to view service failure notifications that can affect the availability of VM1?

- A. Azure Service Fabric
- B. Azure Monitor
- C. Azure virtual machines
- D. Azure Advisor

Answer:

B

Explanation:

The correct service is Azure Monitor. Azure Monitor includes Azure Service Health, which provides personalized alerts and guidance when Azure service issues, planned maintenance, or health advisories could affect your resources, such as the virtual machine VM1. Service Health tracks the health of your services in specific regions, and you can view active incidents and upcoming maintenance in the Azure portal. You can also configure alerts through Azure Monitor to be proactively notified of service health events, ensuring you are aware of any potential impacts on availability.

Why Incorrect Options are Wrong:

- A. Azure Service Fabric: This is a platform for developing and managing microservices and containerized applications, not for monitoring the health of the underlying Azure infrastructure.
- C. Azure virtual machines: This is the service for creating and managing VMs. While it shows a VM's current state (e.g., running, stopped), it is not the service for viewing platform-wide failure notifications.
- D. Azure Advisor: This service provides recommendations to optimize Azure resources for cost, security, and performance. It does not provide real-time notifications about service failures.

References:

1. Microsoft Learn, Azure Service Health documentation, "Service Health overview".
"Azure Service Health notifies you about Azure service incidents and planned maintenance so you can take action to mitigate downtime... Service Health provides a personalized view of the health of the Azure services and regions you're using." This confirms Service Health is the tool for viewing service failure notifications.
2. Microsoft Learn, Azure Monitor documentation, "Azure Monitor overview".
Under the "Data sources" section, it lists "Azure subscription (including Azure Service Health)" as

a source of data for Azure Monitor. This establishes the direct relationship where Monitor is the umbrella service that consumes and acts on Service Health data.

3. Microsoft Learn, Azure Service Health documentation, "Create activity log alerts on service notifications using the Azure portal".

"Azure Service Health broadcasts notifications... Azure Monitor routes these notifications as entries in the activity log. Because these notifications are in the activity log, you can set up an alert to be notified by email, SMS, or webhook when they occur." This demonstrates that alerting on service failures is a function managed within Azure Monitor.

Question: 98

HOTSPOT You plan to extend your company's network to Azure. The network contains a VPN appliance that uses an IP address of 131.107.200.1. You need to create an Azure resource that identifies the VPN appliance. Which Azure resource should you create? To answer, select the appropriate resource in the answer area.

NETWORKING (20)	
 Virtual networks	★
 Load balancers	★
 Virtual network gateways	★
 DNS zones	★
 Traffic Manager profiles	★
 Network Watcher	★
 Virtual networks (classic)	★
 Application gateways	★
 Local network gateways	★
 CDN profiles	★
 ExpressRoute circuits	★
 Network security groups	★

Answer:

Local network gateway

Explanation:

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A local network gateway is an Azure object that represents your on-premises network location and its corresponding VPN device. To establish a site-to-site (S2S) VPN, Azure needs to know the configuration of the on-premises endpoint. The local network gateway resource is where you specify this information, including the public IP address of the on-premises VPN appliance and the on-premises network's address prefixes. This object acts as the identifier for the on-premises network, allowing the Azure virtual network gateway to establish a connection to it.

References:

1. Microsoft Azure Documentation, "What is VPN Gateway?". Microsoft Learn. In the section "What is a local network gateway?", it states: "The local network gateway is a resource in Azure that represents your on-premises VPN device. When you create a local network gateway resource, you specify its name, its public IP address... and the address prefixes of your on-premises network."

Source:

<https://learn.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-vpngateways#lng>

2. Microsoft Azure Documentation, "Tutorial: Create a site-to-site VPN connection in the Azure portal". Microsoft Learn. Step 4, "Create the local network gateway," explicitly details this process: "The local network gateway represents your on-premises network. You give the local network gateway a name by which Azure can refer to it, and then specify the public IP address of your

on-premises VPN device."

Source: <https://learn.microsoft.com/en-us/azure/vpn-gateway/tutorial-site-to-site-portal#createLng>

Question: 99

You need to identify the type of failure for which an Azure availability zone can be used to protect access to Azure services. What should you identify?

- A. a physical server failure
- B. an Azure region failure
- C. a storage failure
- D. an Azure data center failure

Answer:

D

Explanation:

Azure Availability Zones are physically separate datacenters within a single Azure region. Each zone has independent power, cooling, and networking infrastructure. This design provides high availability and fault tolerance by protecting applications and data from failures that affect an entire datacenter. If one datacenter (or zone) experiences an outage, resources deployed in other zones within the same region remain operational, ensuring business continuity.

Why Incorrect Options are Wrong:

CertMage.com

- A. a physical server failure: This is a component-level failure handled by fault tolerance within a single datacenter, often using Azure Availability Sets or the platform's inherent redundancy.
- B. an Azure region failure: Availability Zones operate within a single region. To protect against the failure of an entire region, you must use paired regions and geo-replication strategies.
- C. a storage failure: While Zone-Redundant Storage (ZRS) uses Availability Zones to protect against datacenter failure, the fundamental failure domain that Availability Zones address is the datacenter itself, not just a storage component.

References:

1. Microsoft Learn. "Regions and Availability Zones in Azure." Azure Architecture Center. Accessed May 20, 2024. In the "Availability Zones" section, it states, "With Availability Zones, you can build applications that are highly available and resilient to datacenter failures."
2. Microsoft Learn. "Describe core architectural components of Azure." AZ-900: Microsoft Azure Fundamentals. Accessed May 20, 2024. In the "What are regions, availability zones, and region pairs?" unit, it clarifies, "Availability zones are physically separate datacenters within an Azure region... They protect your applications and data from datacenter failures."
3. Microsoft Learn. "Resiliency in Azure." Azure Architecture Center. Accessed May 20, 2024. Under the table "Failure scope and resiliency approaches," the document explicitly lists "Availability Zones" as the primary resiliency approach for a "Datacenter failure."

Question: 100

A support engineer plans to perform several Azure management tasks by using the Azure CLI. You install the CLI on a computer. You need to tell the support engineer which tools to use to run the CLI. Which two tools should you instruct the support engineer to use? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. Command Prompt
- B. Azure Resource Explorer
- C. Windows PowerShell
- D. Windows Defender Firewall
- E. Network and Sharing Center

Answer:

A, C

Explanation:

The Azure Command-Line Interface (CLI) is a cross-platform tool that can be installed locally on computers to manage Azure resources. On a Windows operating system, the Azure CLI is executed from a command-line shell. Both Command Prompt (cmd.exe) and Windows PowerShell are native command-line environments in Windows. After installing the Azure CLI, you can open either of these tools and use the az command to interact with your Azure subscription.

Why Incorrect Options are Wrong:

- B. Azure Resource Explorer is a web-based tool for exploring Azure Resource Manager APIs and is not a command-line shell.
- D. Windows Defender Firewall is a network security application used to filter network traffic, not to execute commands.
- E. Network and Sharing Center is a graphical user interface in the Windows Control Panel for managing network settings.

References:

1. Microsoft Learn. (2023). Install the Azure CLI on Windows. In "Get started with the Azure CLI". Under the section "Run the Azure CLI", the documentation states, "You can now run the Azure CLI with the az command from either Windows Command Prompt or PowerShell."
2. Microsoft Learn. (2023). Get started with Azure CLI. In "Azure CLI documentation". The introductory section describes the CLI as a "command-line tool" and provides examples that are run within a shell environment like PowerShell or Command Prompt.

Question: 101

This question requires that you evaluate the underlined text to determine if it is correct. One of the benefits of Azure SQL Data Warehouse is that high availability is built into the platform.

Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. automatic scaling
- C. data compression
- D. versioning

Answer:

A

Explanation:

The statement is correct. Azure Synapse Analytics (formerly Azure SQL Data Warehouse) is a Platform as a Service (PaaS) offering. A core benefit of this service model is that foundational capabilities like high availability and disaster recovery are built into the platform. The service architecture includes redundant components, automatic detection and recovery from node failures, and leverages Azure Storage for data durability. Furthermore, it automatically creates database snapshots and supports geo-redundant backups, ensuring data is protected and the service remains resilient without requiring manual configuration from the user.

Why Incorrect Options are Wrong:

- B. automatic scaling: While the service provides compute elasticity, scaling (adjusting Data Warehouse Units) is typically a manual or scheduled action, not an automatic response to workload changes.
- C. data compression: Data compression, primarily through columnstore indexes, is a significant feature that improves performance and reduces storage costs, but high availability is a more fundamental platform-level benefit.
- D. versioning: Data or schema versioning is not a native, built-in feature of Azure SQL Data Warehouse / Synapse Analytics.

References:

1. Microsoft Learn. (2023). High availability for dedicated SQL pools in Azure Synapse Analytics. "The dedicated SQL pool architecture includes several components that work together to provide a highly available data warehouse... Dedicated SQL pool automatically detects and recovers from many of these failures."
2. Microsoft Learn. (2023). Back up and restore in dedicated SQL pools in Azure Synapse

Analytics. "Dedicated SQL pool automatically takes snapshots throughout the day creating restore points that are available for seven days." This is a key component of its high availability and disaster recovery strategy.

3. Microsoft Learn. (2023). Manage compute for dedicated SQL pool in Azure Synapse Analytics. This document details the processes for scaling compute by changing Data Warehouse Units (DWUs), pausing, and resuming, which are user-initiated or scheduled actions, not automatic scaling.

Question: 102

This question requires that you evaluate the underlined text to determine if it is correct. You plan to deploy 20 virtual machines to an Azure environment. To ensure that a virtual machine named VM1 cannot connect to the other virtual machines, VM1 must be deployed to a separate virtual network. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. run a different operating system than the other virtual machines
- C. be deployed to a separate resource group
- D. have two network interfaces

Answer:

A

Explanation:

An Azure Virtual Network (VNet) provides a logically isolated environment in the Azure cloud. By default, resources within the same VNet can communicate with each other, while resources in different VNets cannot. Placing VM1 in a separate virtual network from the other 19 virtual machines is a standard and effective method to enforce network-level isolation, thereby preventing it from connecting to them without explicit configuration like VNet peering or a VPN gateway.

Why Incorrect Options are Wrong:

- B. run a different operating system than the other virtual machines: The operating system of a virtual machine does not determine its network connectivity or isolation at the infrastructure level.
- C. be deployed to a separate resource group: A resource group is a logical container for management, billing, and access control. It does not provide network isolation between resources.
- D. have two network interfaces: Adding a second network interface (NIC) to a virtual machine increases its connectivity options; it does not inherently create isolation from other virtual machines.

References:

1. Microsoft Learn. (2023). What is Azure Virtual Network?. Azure Documentation.

Reference: In the "Communicate between Azure resources" section, it states, "You can deploy virtual machines and several other types of Azure resources to a virtual network... Resources in the same virtual network can communicate with each other." In the "Isolate network traffic" section, it states, "Azure Virtual Network allows you to create multiple virtual networks. Each of the virtual networks is isolated from the others." This confirms that separate VNets provide isolation.

2. Microsoft Learn. (2023). AZ-900: Describe core Azure architectural components.

Reference: In the "Describe Azure virtual networks" unit, the text explains, "An Azure virtual network is a logically isolated section of the Azure network for your resources... Virtual networks provide the following key networking capabilities: isolation and segmentation." This directly supports the concept of using a VNet for isolation.

3. Microsoft Learn. (2023). AZ-900: Describe Azure management and governance.

Reference: In the "Describe resource groups" unit, it defines a resource group as "a logical container for resources deployed on Azure." The description focuses on lifecycle, scope, and organization, with no mention of network isolation, confirming that option C is incorrect.

Question: 103

This question requires that you evaluate the underlined text to determine if it is correct. An Azure region contains one or more data centers that are connected by using a low-latency network.

Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. Is found in each country where Microsoft has a subsidiary office
- C. Can be found in every country in Europe and the Americas only
- D. Contains one or more data centers that are connect by using a high-latency network

Answer:

A

Explanation:

The statement is correct. An Azure region is a geographical area that contains a set of datacenters. These datacenters are deployed within a latency-defined perimeter and are interconnected through a dedicated, regional, low-latency network. This design is crucial for ensuring high performance and providing resiliency features like Availability Zones, which rely on fast, reliable communication between the physical datacenters within the region.

Why Incorrect Options are Wrong:

- B: The presence of an Azure region is not determined by the location of Microsoft subsidiary offices; region placement is based on factors like market demand, power, and network infrastructure.
- C: Azure has a global footprint with regions in Asia, Africa, Australia, and the Middle East, in addition to Europe and the Americas.
- D: Datacenters within a region are connected by a low-latency network. A high-latency network would degrade performance and prevent features that require synchronous data replication.

References:

1. Microsoft Learn. (2024). Describe Azure regions, region pairs, and sovereign regions. In "AZ-900: Describe core Azure concepts". "A region is a geographical area on the planet that contains at least one but potentially multiple datacenters that are nearby and networked together with a low-latency network."
2. Microsoft Learn. (2024). Azure regions and availability zones. In "Azure Architecture Center Pillars of the Well-Architected Framework Reliability". "A region is a set of datacenters deployed within a latency-defined perimeter and connected through a dedicated regional low-latency network."

3. Microsoft Learn. (2024). What are Azure regions and Availability Zones?. In "Azure fundamentals documentation". "An Azure region is an area within a geography, containing one or more datacenters."

Question: 104

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

Statements	Yes	No
If you have Azure resources deployed to every region, you can implement availability zones in all the regions.	<input type="radio"/>	<input type="radio"/>
Only virtual machines that run Windows Server can be created in availability zones.	<input type="radio"/>	<input type="radio"/>
Availability zones are used to replicate data and applications to multiple regions.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: No

Statement 2: No

Statement 3: No

Explanation:

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"If you have Azure resources deployed to every region, you can implement availability zones in all the regions." is incorrect. Availability Zones are a feature enabled only in specific Azure regions. Not all regions have the physical infrastructure to support multiple, isolated datacenters required for Availability Zones. Therefore, you can only implement them in regions that offer this capability, regardless of where your other resources are deployed.

"Only virtual machines that run Windows Server can be created in availability zones." is incorrect. Azure Availability Zones are an infrastructure-level feature and are agnostic to the guest operating system. You can create virtual machines running various supported operating systems, including both Windows Server and multiple Linux distributions (such as Ubuntu, RHEL, and SUSE), within an Availability Zone.

"Availability zones are used to replicate data and applications to multiple regions." is incorrect. Availability Zones provide high availability and fault tolerance within a single Azure region. They consist of physically separate datacenters within one region to protect against local failures. The technology used to replicate data and applications across different regions for disaster recovery is known as geo-replication, which utilizes region pairs.

References:

Microsoft Azure Documentation, "Azure regions and Availability Zones." This document explicitly states, "Availability zones are physically separate datacenters within an Azure region," and provides a table listing which specific regions support them, demonstrating that not all do. It defines the scope of an Availability Zone as being within a single region.

Microsoft Azure Documentation, "Create a Linux virtual machine in an availability zone with the Azure CLI." This official tutorial provides a step-by-step guide for deploying a Linux (Ubuntu) VM into an Availability Zone, directly refuting the claim that only Windows Server is supported.

Microsoft Azure Documentation, "Resiliency in Azure." Under the "Availability zones" section, it clarifies that AZs are "unique physical locations within a region" designed to protect from "datacenter-level failures." This contrasts with the description of "Disaster Recovery," which discusses recovering from "rare large-scale events... that result in regional outage."

Question: 105

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

Statements	Yes	No
Data that is copied to an Azure Storage account is maintained automatically in at least three copies.	<input type="radio"/>	<input type="radio"/>
All data that is copied to an Azure Storage account is backed up automatically to another Azure data center.	<input type="radio"/>	<input type="radio"/>
An Azure Storage account can contain up to 2 TB of data and up to one million files.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

NO

NO

Explanation:

CertMage.com

"Data that is copied to an Azure Storage account is maintained automatically in at least three copies." - Yes. This is true. Even the most basic redundancy option, Locally-Redundant Storage (LRS), replicates data three times synchronously within a single physical location in the primary region. All other redundancy options (ZRS, GRS, GZRS) also maintain at least three copies.

"All data that is copied to an Azure Storage account is backed up automatically to another Azure data center." - No. This is false. This statement describes geo-redundancy. While Azure offers geo-redundant storage (GRS) which replicates data to a secondary region (in a different data center), it is an option that must be configured. The default or most basic option, Locally-Redundant Storage (LRS), replicates data only within a single data center. Therefore, not all data is automatically backed up to another data center.

"An Azure Storage account can contain up to 2 TB of data and up to one million files." - No. This is false. The limits stated are incorrect and significantly underestimate the capacity. A standard Azure Storage account can contain up to 5 petabytes (PiB) of data. 1 PiB is equivalent to 1024 terabytes (TB).

References:

Microsoft Azure Documentation. "Azure Storage redundancy." Microsoft Learn. This document states, "Locally-redundant storage (LRS) replicates your storage account three times within a single data center in the primary region." It also details the different redundancy options, clarifying that only geo-redundant options replicate to a different data center.

Microsoft Azure Documentation. "Scalability and performance targets for standard storage accounts." Microsoft Learn. Under the "Scale targets for standard storage accounts" table, the documentation specifies that the "Maximum storage account capacity" is "5 PiB".

Question: 106

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You have an Azure environment. You need to create a new Azure virtual machine from an Android laptop. Solution: You use PowerShell in Azure Cloud Shell. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

Azure Cloud Shell is an interactive, browser-accessible command-line shell for managing Azure resources. It can be accessed from any device with a modern web browser, which includes an Android laptop. Cloud Shell provides the flexibility to choose between Bash and PowerShell environments. By launching PowerShell within Cloud Shell, a user can execute Azure PowerShell cmdlets, such as `New-AzVM`, to create and configure a virtual machine. This method directly fulfills the requirement of creating a VM from an Android device without needing any local installations.

Why Incorrect Options are Wrong:

B. No: This option is incorrect. The proposed solution is viable because Azure Cloud Shell is platform-independent and accessible through a web browser, making it fully functional on an Android laptop for managing Azure resources via PowerShell.

References:

1. Microsoft Learn. (2023). Overview of Azure Cloud Shell. "Azure Cloud Shell is an interactive, authenticated, browser-accessible shell for managing Azure resources. It provides the flexibility of choosing the shell experience that best suits the way you work, either Bash or PowerShell."
2. Microsoft Learn. (2023). Features & tools for Azure Cloud Shell. Under the "Tools" section, it lists "Azure tools: Azure CLI and Azure PowerShell." This confirms the availability of the necessary command-line tools.
3. Microsoft Learn. (2024). Quickstart: Create a Windows virtual machine in Azure with PowerShell. This document details the use of the `New-AzVM` cmdlet, which is the standard command available within the PowerShell environment in Cloud Shell to create a virtual machine.

Question: 107

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company plans to migrate all its data and resources to Azure. The company's migration plan states that only platform as a service (PaaS) solutions must be used in Azure. You need to deploy an Azure environment that supports the planned migration. Solution: You create an Azure App Service and Azure SQL databases. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The migration plan mandates the exclusive use of Platform as a Service (PaaS) solutions. Azure App Service is a PaaS offering designed to host web applications, REST APIs, and mobile back ends, abstracting the underlying infrastructure from the developer. Azure SQL Database is a fully managed PaaS database engine, where Microsoft handles all management functions like patching, backups, and monitoring. Since both proposed services, Azure App Service and Azure SQL databases, are PaaS solutions, this deployment directly meets the stated goal.

Why Incorrect Options are Wrong:

B. No: This option is incorrect. The proposed solution correctly identifies and uses two primary examples of Azure PaaS services, which aligns perfectly with the company's migration requirement.

References:

1. Microsoft Learn. (2023). What is Azure SQL Database? In Azure SQL Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview>. In the "Overview" section, the first sentence states, "Azure SQL Database is a fully managed platform as a service (PaaS) database engine..."
2. Microsoft Learn. (2023). App Service overview. In Azure App Service Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/app-service/overview>. The "Why use App Service?" section explicitly states, "For app developers, App Service is a platform-as-a-service

(PaaS) offering."

3. Microsoft Learn. (2023). Describe cloud service types. In AZ-900: Microsoft Azure Fundamentals course materials. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-cloud-service-types/3-platform-as-service>. This module lists both Azure App Services and Azure SQL Database as common examples of PaaS.

Question: 108

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company plans to migrate all its data and resources to Azure. The company's migration plan states that only platform as a service (PaaS) solutions must be used in Azure. You need to deploy an Azure environment that supports the planned migration. Solution: You create an Azure App Service and Azure virtual machines that have Microsoft SQL Server installed. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The proposed solution is incorrect because it violates the company's migration plan, which mandates the exclusive use of Platform as a Service (PaaS) solutions. The solution includes Azure virtual machines with SQL Server installed. Azure Virtual Machines are an Infrastructure as a Service (IaaS) offering, where the customer is responsible for managing the operating system and the database software. While Azure App Service is a PaaS solution, the inclusion of an IaaS component makes the entire solution non-compliant with the stated goal. A compliant PaaS alternative for the database would be Azure SQL Database or Azure SQL Managed Instance.

Why Incorrect Options are Wrong:

- A. Yes: This is incorrect because the solution's use of Azure Virtual Machines, an IaaS service, violates the strict PaaS-only requirement of the migration plan.

References:

1. Microsoft Learn. (n.d.). What is Infrastructure as a service (IaaS)? . Azure Cloud Adoption Framework. Retrieved from <https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/strategy/cloud-service-models#what-is-infrastructure-as-a-service-iaas>. This document explicitly states, "The most common IaaS products are virtual machines..."
2. Microsoft Learn. (n.d.). Choose a cloud SQL Server option: Azure SQL (PaaS) or SQL Server on Azure VMs (IaaS). Retrieved from <https://learn.microsoft.com/en-us/azure/azure-sql/azure-sql-iaas-vs-paas-what-is-overview>. The "Summary" section and table clearly categorize SQL Server on Azure VMs as IaaS and Azure

SQL Database/Managed Instance as PaaS.

3. Microsoft Learn. (n.d.). App Service overview. Retrieved from <https://learn.microsoft.com/en-us/azure/app-service/overview>. The first paragraph describes Azure App Service as a "fully managed platform for building, deploying, and scaling web apps," which is the definition of a PaaS offering.

Question: 109

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company plans to migrate all its data and resources to Azure. The company's migration plan states that only platform as a service (PaaS) solutions must be used in Azure. You need to deploy an Azure environment that supports the planned migration. Solution: You create an Azure App Service and Azure Storage accounts. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The proposed solution is incomplete. While Azure App Service and Azure Storage are indeed Platform as a Service (PaaS) offerings, they are insufficient to support the migration of "all" of a company's data and resources. A typical enterprise environment includes databases, which are not addressed by this solution. To meet the goal, a PaaS database solution, such as Azure SQL Database or Azure Cosmos DB, would also be required. Because the solution omits a critical component like a managed database, it fails to provide a comprehensive environment for the planned migration.

Why Incorrect Options are Wrong:

A. Yes: This is incorrect because the solution is not comprehensive. It lacks essential PaaS components, such as a managed database service, needed to migrate "all" of a company's resources.

References:

1. Microsoft Learn. "Describe cloud service types." This document defines Platform as a Service (PaaS) as a complete development and deployment environment in the cloud, which typically includes middleware, development tools, database management systems, and more. The proposed solution lacks a database management system.
2. Microsoft Learn. "Azure App Service overview." This document explicitly categorizes Azure App Service as a "fully managed platform for building, deploying, and scaling your web apps," which is a PaaS offering.

3. Microsoft Learn. "What is Azure SQL Database?" This document describes Azure SQL Database as a "fully managed platform as a service (PaaS) database engine," highlighting the type of service missing from the proposed solution to make it complete for migrating "all" resources.
4. Microsoft Learn. "Introduction to Azure Storage." This document describes the various services within an Azure Storage account, such as Blob, File, Queue, and Table storage. These are managed services that fit the PaaS model, abstracting the underlying hardware.

Question: 110

Your company hosts an accounting named App1 that is used by all the customers of the company. App1 has low usage during the first three weeks of each month and very high usage during the last week of each month. Which benefit of Azure Cloud Services supports cost management for this type of usage pattern?

- A. high availability
- B. high latency
- C. elasticity
- D. load balancing

Answer:

C

Explanation:

Elasticity is the ability of a cloud system to automatically scale resources, such as computing power or storage, up or down to match fluctuating demand. In the described scenario, the application requires minimal resources for three weeks but a significant amount for the final week. Elasticity allows the company to automatically provision more resources during the high-usage period to ensure performance and then release those resources during the low-usage period. This "pay-as-you-go" model, enabled by elasticity, is the key benefit that supports cost management by preventing over-provisioning and ensuring the company only pays for the resources it actively consumes.

Why Incorrect Options are Wrong:

- A. high availability: This ensures the application remains operational during failures. While important, it does not directly address cost management for variable usage patterns.
- B. high latency: This is a negative attribute, indicating slow response times. It is a problem to be solved, not a benefit of cloud services.
- D. load balancing: This distributes traffic across multiple servers to prevent overload on a single server but does not inherently scale the total number of resources to manage costs.

References:

1. Microsoft Learn. (2024). Describe cloud concepts - Describe elasticity. AZ-900: Microsoft Azure Fundamentals course. "Elasticity is the ability to automatically increase or decrease resources as needed. For example, your website could be configured to automatically add more resources to handle an increase in traffic and then remove those resources when traffic subsides. Elasticity is especially advantageous when your workload changes unpredictably."
2. Microsoft Learn. (2024). Describe cloud concepts - Describe agility. AZ-900: Microsoft Azure

Fundamentals course. "Agility is the ability to react quickly. Cloud services can allocate and deallocate resources quickly. They are provided on-demand, so you don't have to wait for the resources to become available. This agility lets you respond to changing market conditions and customer demands in a timely manner." (Note: Elasticity is a key enabler of agility and cost-effective scaling).

3. Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2009). A View of Cloud Computing. Communications of the ACM, 53(4), 50-58. Section 2.2, "Illusion of infinite computing resources available on demand... This means that cloud computing can allow a startup company to ramp up their services as they become popular without having to provision servers for the peak load." This academic paper establishes the foundational concept of on-demand resource scaling (elasticity) as a core benefit. DOI: <https://doi.org/10.1145/1721654.1721672>

Question: 111

You plan to migrate a web application to Azure. The web application is accessed by external users. You need to recommend a cloud deployment solution to minimize the amount of administrative effort used to manage the web application. What should you include in the recommendation?

- A. software as a service (SaaS)
- B. platform as a service (PaaS)
- C. infrastructure as a service (IaaS)
- D. database as a service (DaaS)

Answer:

B

Explanation:

Platform as a Service (PaaS) is the recommended cloud deployment solution because it abstracts the underlying infrastructure, such as virtual machines, operating systems, and server maintenance. With a PaaS solution like Azure App Service, the cloud provider (Microsoft) manages the platform, including patching, updates, and scaling infrastructure. This allows the developers to focus solely on deploying and managing the web application and its data, thereby minimizing the administrative effort required, which directly addresses the core requirement of the question.

Why Incorrect Options are Wrong:

- A. software as a service (SaaS): SaaS provides ready-to-use software (e.g., Microsoft 365). It is not a platform for migrating and running your own custom web application.
- C. infrastructure as a service (IaaS): IaaS requires the most administrative effort. You are responsible for managing the operating systems, patching, and middleware, which contradicts the goal of minimizing administration.
- D. database as a service (DaaS): DaaS is a specialized PaaS offering for databases only. It does not provide a solution for hosting the web application's code and front-end components.

References:

1. Microsoft Learn: "What is Platform as a service (PaaS)?". This document states, "PaaS provides a complete development and deployment environment in the cloud... You manage the applications and services you develop, and the cloud service provider typically manages everything else." This confirms that PaaS offloads infrastructure management.
2. Microsoft Learn: "Shared responsibility in the cloud". The responsibility chart in this document

clearly shows that with PaaS, the customer's responsibility is limited to the application and data, while the cloud provider manages the runtime, middleware, OS, and hardware. In contrast, IaaS extends customer responsibility to the operating system and middleware, increasing administrative effort.

3. Microsoft Learn: "Describe cloud service types". This module explains the different service types. Under the "Platform as a service (PaaS)" section, it notes, "The goal of PaaS is to help you create an application quickly without managing the underlying infrastructure." This directly supports the choice of PaaS for minimizing administrative effort.

Question: 112

HOTSPOT Which cloud deployment solution is used for Azure virtual machines and Azure SQL databases? To answer, select the appropriate options in the answer area. Hot Area:

Answer Area

Azure virtual machines:

- Infrastructure as a service (IaaS)
- Platform as a service (PaaS)
- Software as a service (SaaS)

Azure SQL databases:

- Infrastructure as a service (IaaS)
- Platform as a service (PaaS)
- Software as a service (SaaS)

Answer:

Azure virtual machines: Infrastructure as a service (IaaS)

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Azure SQL databases: Platform as a service (PaaS)

Explanation:

Azure Virtual Machines are an Infrastructure as a Service (IaaS) offering. In this model, Microsoft Azure provides the fundamental computing infrastructure, including servers, storage, and networking, while the customer is responsible for managing the operating system, middleware, and applications. The user has control over the OS and the software stack installed on it.

Azure SQL Database is a Platform as a Service (PaaS) offering. With PaaS, Azure manages the underlying infrastructure, the operating system, and the database engine software, including patching and updates. The customer is only responsible for managing their data and the application that interacts with the database, abstracting away the underlying platform management.

References:

Microsoft Azure Documentation, "What is Infrastructure as a service (IaaS)?". This document explicitly categorizes virtual machines as a primary example of IaaS. It states, "IaaS is an instant computing infrastructure, provisioned and managed over the internet... IaaS quickly scales up and down with demand, letting you pay only for what you use... Common IaaS business scenarios:

Lift-and-shift migration... Test and development."

Microsoft Azure Documentation, "What is Platform as a service (PaaS)?". This source identifies managed database services as a key PaaS offering. It explains, "PaaS provides a framework for developers that they can build upon and use to create customized applications... Examples of PaaS include... our database service offerings."

Microsoft Azure Documentation, "What is Azure SQL Database?". Under the "Service tiers" section, this page defines Azure SQL Database as a fully managed PaaS database engine that handles most database management functions like upgrading, patching, backups, and monitoring without user involvement.

Microsoft Azure Documentation, "Cloud service models". This page provides a comparison chart showing the division of responsibilities. For IaaS, the customer manages everything from the operating system upwards. For PaaS, the cloud provider manages the OS and runtime, leaving the customer to manage only their applications and data, which directly aligns with the classification of VMs and SQL Database.

Question: 113

You have an on-premises network that contains 100 servers. You need to recommend a solution that provides additional resources to your users. The solution must minimize capital and operational expenditure costs. What should you include in the recommendation?

- A. a complete migration to the public cloud
- B. an additional data center
- C. a private cloud
- D. a hybrid cloud

Answer:

D

Explanation:

A hybrid cloud solution integrates the existing on-premises infrastructure with a public cloud. This model is ideal for providing additional resources without incurring significant new capital expenditure (CapEx), as it avoids the need to purchase new servers or build a new data center. The organization can leverage the public cloud's pay-as-you-go pricing for the extra capacity, which helps control operational expenditure (OpEx). This approach allows the company to scale out to the cloud when demand increases ("cloud bursting"), effectively extending its current infrastructure in the most cost-effective manner, thus minimizing both CapEx and OpEx.

Why Incorrect Options are Wrong:

- A. a complete migration to the public cloud: This option discards the existing investment in 100 servers and can involve substantial migration costs, not necessarily minimizing overall expenditure.
- B. an additional data center: This solution represents a massive capital expenditure for construction, hardware, and networking, directly contradicting the requirement to minimize CapEx.
- C. a private cloud: Building a private cloud requires significant upfront capital expenditure to purchase and configure the necessary on-premises hardware and software.

References:

1. Microsoft Learn, "Describe cloud service types": In the "Compare the cloud models" section, a hybrid cloud is defined as a combination of public and private clouds, offering the flexibility to leverage public cloud resources to extend on-premises capabilities. This supports the idea of using it for "additional resources."
2. Microsoft Learn, "Describe the benefits of using cloud services": The section "Capital expenditure (CapEx) vs. operational expenditure (OpEx)" explains that cloud computing helps reduce CapEx by eliminating the need to buy hardware. A hybrid model applies this principle to

the additional resources needed, thus minimizing new CapEx.

3. Microsoft Azure Documentation, "What is Hybrid Cloud Computing?": This document states, "A hybrid cloud extends an organization's on-premises, private infrastructure into a public cloud." It highlights key benefits such as improved scalability and cost-effectiveness, which directly align with the question's requirements to add resources while minimizing costs.

Question: 114

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

Statements	Yes	No
To achieve a hybrid cloud model, a company must always migrate from a private cloud model.	<input type="radio"/>	<input type="radio"/>
A company can extend the capacity of its internal network by using the public cloud.	<input type="radio"/>	<input type="radio"/>
In a public cloud model, only guest users at your company can access the resources in the cloud.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: No

Statement 2: Yes

Statement 3: No

Explanation:

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To achieve a hybrid cloud model, a company must always migrate from a private cloud model.

- This is false. A hybrid cloud is a composition of two or more distinct cloud infrastructures (private, community, or public). An organization can create a hybrid environment by extending its existing on-premises data center to a public cloud, or by integrating existing public and private cloud services. The migration path is not fixed.

A company can extend the capacity of its internal network by using the public cloud.

- This is true. This practice is a key benefit of the hybrid cloud model and is often referred to as "cloud bursting." When the demand for computing capacity on an organization's private cloud or internal network exceeds its capabilities, it can "burst" the overflow traffic and workload to a public cloud.

In a public cloud model, only guest users at your company can access the resources in the cloud.

- This is false. A public cloud is provisioned for open use by the general public. While a company controls access to its own resources within the public cloud, it can grant access to any type of user it authorizes (e.g., employees, administrators, customers, partners), not just guest users.

The defining characteristic is the shared nature of the infrastructure, not the type of user.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

Hybrid Cloud Definition (Page 3): "The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities but are bound together by standardized or proprietary technology that enables data and application portability (e.g., cloud bursting for load balancing between clouds)." This definition does not mandate a specific migration path.

Public Cloud Definition (Page 3): "The cloud infrastructure is provisioned for open use by the general public. It may be owned, managed, and operated by a business, academic, or government organization, or some combination of them." This contradicts the idea that access is limited to a specific user type like "guest users."

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58. <https://doi.org/10.1145/1721654.1721672>

Cloud Bursting (Section 3.1): The paper describes how private clouds can leverage "cloud-bursting" to utilize public cloud resources to meet peak demands, effectively extending their capacity. This supports the correctness of the second statement.

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Question: 115

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You plan to deploy several Azure virtual machines. You need to ensure that the services running on the virtual machines are available if a single data center fails. Solution: You deploy the virtual machines to two or more scale sets. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

Deploying virtual machines to two or more scale sets does not inherently guarantee protection against a single data center failure. A Virtual Machine Scale Set is a tool for managing and scaling a group of identical VMs. For the services to be available after a data center failure, the deployment must be distributed across physically separate locations. The solution must explicitly state that the VMs or scale sets are deployed across multiple Availability Zones. An Availability Zone is a unique physical location with independent power, cooling, and networking within an Azure region. The proposed solution lacks this critical detail, as both scale sets could be deployed within the same data center, providing no resilience against its failure.

Why Incorrect Options are Wrong:

A. Yes: This is incorrect because the solution is incomplete. Simply creating multiple scale sets does not ensure they are in different data centers. Without being configured to span multiple Availability Zones, the goal of surviving a data center failure is not met.

References:

1. Microsoft Learn, "Regions and Availability Zones in Azure". In the "Availability Zones" section, it states, "Availability Zones are physically separate locations within an Azure region. Each Availability Zone is made up of one or more datacenters... To ensure resiliency, there's a minimum of three separate Availability Zones in all enabled regions." This establishes that Availability Zones are the mechanism to protect against data center failures.

Source: learn.microsoft.com/en-us/azure/availability-zones/az-overview#availability-zones

2. Microsoft Learn, "Create a virtual machine scale set that uses Availability Zones". The overview

section states, "To protect your scale sets from datacenter-level failures, you can create a scale set across Availability Zones." This confirms that a scale set can be used to meet the goal, but only if it is explicitly configured to use Availability Zones, a detail missing from the proposed solution.

Source: learn.microsoft.com/en-us/azure/virtual-machine-scale-sets/create-use-availability-zones

3. Microsoft Learn, AZ-900: "Describe core architectural components of Azure" learning path. In the unit "Describe Azure regions, region pairs, and sovereign regions," it clarifies, "Using Availability Zones, you can build solutions that provide high availability by ensuring that a datacenter-wide issue doesn't result in an outage." This directly links the requirement (surviving a data center failure) to the correct Azure feature (Availability Zones).

Source: learn.microsoft.com/en-us/training/modules/describe-core-architectural-components-of-azure/3-describe-regions-availability-zones-region-pairs

Question: 116

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You plan to deploy several Azure virtual machines. You need to ensure that the services running on the virtual machines are available if a single data center fails. Solution: You deploy the virtual machines to two or more availability zones. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The proposed solution correctly meets the stated goal. Azure Availability Zones are physically separate locations within an Azure region, where each zone consists of one or more datacenters with independent power, cooling, and networking. By deploying virtual machines across at least two Availability Zones, the application becomes resilient to failures affecting a single datacenter. If one zone experiences an outage, the virtual machines in the other, unaffected zones will continue to operate, thus ensuring the availability of the services.

Why Incorrect Options are Wrong:

B. No: This option is incorrect. Using multiple Availability Zones is a primary and officially recommended strategy in Azure to protect applications and services from datacenter-level failures and ensure high availability.

References:

1. Microsoft Learn. "Describe the core architectural components of Azure." AZ-900: Describe core Azure concepts. Microsoft. Accessed May 20, 2024. In the "Describe Availability Zones" unit, it states, "Availability Zones are physically separate datacenters within an Azure region... If one zone goes down, the other continues working. Availability Zones are connected to each other through high-speed, private fiber-optic networks."
2. Microsoft Azure Documentation. "Regions and Availability Zones in Azure." Azure Architecture Center. Microsoft. Last updated April 29, 2024. Under the section "Availability Zones," it clarifies, "Availability Zones are unique physical locations within an Azure region. Each zone is made up of one or more datacenters equipped with independent power, cooling, and networking... To ensure

resiliency, there's a minimum of three separate zones in all enabled regions."

3. Microsoft Azure Well-Architected Framework. "Availability zone deployments." Reliability Design Recommendations for availability. Microsoft. Last updated April 1, 2024. The documentation recommends, "Use Availability Zones to protect from datacenter-level failures... When you deploy into Availability Zones, you can spread your applications and data across multiple zones within a region."

Question: 117

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You plan to deploy several Azure virtual machines. You need to ensure that the services running on the virtual machines are available if a single data center fails. Solution: You deploy the virtual machines to two or more regions. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The proposed solution meets the goal. An Azure region is a geographic area that contains one or more data centers. By deploying virtual machines across two or more separate regions, you ensure geographic redundancy. If a single data center in one region fails, the virtual machines and services running in the other, geographically isolated region(s) will remain unaffected and available. This multi-region deployment is a standard and robust strategy for achieving high availability and disaster recovery, effectively protecting against localized failures, including the failure of an entire data center.

Why Incorrect Options are Wrong:

B. No: This is incorrect. Deploying resources to multiple regions is a valid and highly effective method for ensuring service availability in the event of a data center or even a complete regional failure.

References:

1. Microsoft Learn. (2023). Regions and Availability Zones in Azure. "An Azure region is an area within a geography, containing one or more datacenters... To protect your services from failure of a single datacenter, you can deploy your resources across multiple Availability Zones... For protection from a regional disaster, you can use cross-region disaster recovery..." This confirms that a multi-region deployment inherently protects against a single data center failure, as it's a more comprehensive disaster recovery strategy.

Source: <https://learn.microsoft.com/en-us/azure/availability-zones/az-overview> (Section: "Regions" and "Availability Zones")

2. Microsoft Learn. (2024). Describe the purpose of Azure regions, region pairs, and sovereign regions. "Deploying resources across multiple regions provides better protection from regional or large-scale disasters." A single data center failure is a localized event that a multi-region strategy is designed to protect against.

Source: <https://learn.microsoft.com/en-us/training/modules/describe-features-tools-azure-for-governance-compliance/4-describe-purpose-of-regions-region-pairs> (Section: "Using multiple regions")

3. Microsoft Azure Well-Architected Framework. (2023). High availability for Azure applications. "To protect an application against a regional outage, you can deploy the application to multiple regions... This approach provides a higher level of availability..." This principle directly supports that a multi-region deployment ensures availability during an outage, which includes a data center failure.

Source: <https://learn.microsoft.com/en-us/azure/well-architected/resiliency/app-design-ha> (Section: "Deploy the application to multiple regions")

Question: 118

You have 1,000 virtual machines hosted on the Hyper-V hosts in a data center. You plan to migrate all the virtual machines to an Azure pay-as-you-go subscription. You need to identify which expenditure model to use for the planned Azure solution. Which expenditure model should you identify?

- A. operational
- B. elastic
- C. capital
- D. scalable

Answer:

A

Explanation:

Migrating on-premises virtual machines to an Azure pay-as-you-go subscription represents a shift from a Capital Expenditure (CapEx) model to an Operational Expenditure (OpEx) model. In the on-premises model, costs for servers and infrastructure are upfront capital expenses. In contrast, the Azure pay-as-you-go model involves paying for computing resources as they are consumed, with no long-term commitment or upfront costs. This consumption-based billing is classified as an ongoing operational expense, which is the core of the OpEx model.

Why Incorrect Options are Wrong:

- B. elastic: Elasticity is a technical benefit of the cloud that describes the ability to automatically scale resources based on demand, not a financial expenditure model.
- C. capital: Capital Expenditure (CapEx) involves upfront spending on physical infrastructure, which is the model being moved away from, not the model for the planned Azure solution.
- D. scalable: Scalability is a technical capability of the cloud to handle increased workloads by adding resources, not a financial expenditure model.

References:

1. Microsoft Learn. (2024). Compare capital expenditure (CapEx) with operational expenditure (OpEx). In "Describe cloud concepts" (AZ-900). "With cloud computing, you don't pay for physical infrastructure... Instead, you pay for the IT resources you use. This consumption-based model is an operational expenditure (OpEx) model." Reference: learn.microsoft.com/en-us/training/modules/describe-cloud-concepts/4-compare-cloud-pricing-models
2. Microsoft Learn. (2024). What is a consumption-based model? In "Describe cloud concepts"

(AZ-900). "Cloud service providers operate on a consumption-based model, which means that end users only pay for the resources that they use... This consumption-based model is based on an OpEx model."

Reference: learn.microsoft.com/en-us/training/modules/describe-cloud-concepts/3-describe-consumption-based-model

3. Microsoft Learn. (2024). Describe the benefits of high availability and scalability in the cloud. In "Describe the benefits of using cloud services" (AZ-900). This document defines scalability and elasticity as technical benefits of cloud computing, distinguishing them from financial models like OpEx and CapEx.

Reference: learn.microsoft.com/en-us/training/modules/describe-benefits-of-using-cloud-services/2-describe-benefits-high-availability-scalability

Question: 119

HOTSPOT 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
Azure Advisor provides recommendations on how to improve the security of an Azure Active Directory (Azure AD) environment.	<input type="radio"/>	<input type="radio"/>
Azure Advisor provides recommendations on how to reduce the cost of running Azure virtual machines.	<input type="radio"/>	<input type="radio"/>
Azure Advisor provides recommendations on how to configure the network settings on Azure virtual machines.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

Yes

Explanation:

Statement 1: No Azure Advisor's recommendations focus on Azure resources within a subscription. While it surfaces security recommendations from Microsoft Defender for Cloud that may involve Azure AD principals (like enabling MFA for subscription owners), it does not provide holistic recommendations for the Azure AD tenant environment itself. The primary service for that purpose is the Microsoft Entra Identity Secure Score.

Statement 2: Yes One of the core functions of Azure Advisor is to provide cost optimization recommendations. It analyzes resource usage and suggests actions to reduce spending, such as resizing or shutting down underutilized virtual machines, which is a key feature for managing

cloud expenses effectively.

Statement 3: Yes Azure Advisor provides recommendations for virtual machine network configurations across several of its pillars. For instance, it gives Security recommendations to restrict network traffic using Network Security Groups (NSGs), Performance recommendations to enable Accelerated Networking, and Reliability recommendations to use a load balancer.

References:

Microsoft. (n.d.). Introduction to Azure Advisor. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/advisor/advisor-overview>.

This document outlines the five categories of recommendations provided by Azure Advisor: Reliability, Security, Performance, Cost, and Operational Excellence. It clarifies that the scope is focused on Azure resources.

Microsoft. (n.d.). Azure Advisor cost recommendations. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/advisor/advisor-cost-recommendations>.

This source explicitly states, "Advisor helps you optimize and reduce your overall Azure spend by identifying idle and underutilized resources... You can get cost recommendations from the Cost tab on the Advisor dashboard... For example: Optimize virtual machine spend by resizing or shutting down underutilized resources."

Microsoft. (n.d.). What is the identity secure score in Microsoft Entra ID?. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/entra/fundamentals/identity-secure-score>.

This page specifies that the Identity Secure Score provides recommendations for improving the security posture of the Azure AD (now Microsoft Entra ID) tenant, distinguishing its role from resource-focused tools like Azure Advisor.

Question: 120

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

Statements	Yes	No
Data that is copied to an Azure Storage account is maintained automatically in at least three copies.	<input type="radio"/>	<input type="radio"/>
All data that is copied to an Azure Storage account is backed up automatically to another Azure data center.	<input type="radio"/>	<input type="radio"/>
An Azure Storage account can contain up to 2 TB of data and up to one million files.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

No

Explanation:

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Yes. Azure Storage always maintains a minimum of three copies of your data. The most basic redundancy option, Locally-Redundant Storage (LRS), replicates data three times within a single physical location in the primary region. All other redundancy options create even more copies, so the minimum is always three.

No. This statement is false because the replication to another data center depends on the chosen redundancy option. While Geo-Redundant Storage (GRS) and Geo-Zone-Redundant Storage (GZRS) replicate data to a secondary region (and thus another data center), customers can select Locally-Redundant Storage (LRS), which only replicates data within a single data center. Therefore, not all data is automatically backed up to another data center.

No. This statement is incorrect. A standard Azure Storage account has a maximum capacity of 5 PiB (Pebibytes), which is significantly more than 2 TB. There is no explicit limit on the number of files, only on the total storage capacity and request rates.

References:

Azure Storage redundancy. (2024). Microsoft Learn. "Locally-redundant storage (LRS) replicates your storage account three times within a single data center in the primary region... LRS is the lowest-cost redundancy option and offers the least durability compared to other options."

Retrieved from <https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy>.
Scalability and performance targets for standard storage accounts. (2024). Microsoft Learn. "The following table describes default limits for Azure general-purpose v2 (GPv2), general-purpose v1 (GPv1), and Blob storage accounts... Capacity: 5 PiB". Retrieved from
<https://learn.microsoft.com/en-us/azure/storage/common/scalability-targets-standard-account>.

Question: 121

You have an Azure environment that contains multiple Azure virtual machines. You plan to implement a solution that enables the client computers on your on-premises network to communicate to the Azure virtual machines. You need to recommend which Azure resources must be created for the planned solution. Which two Azure resources should you include in the recommendation? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. a virtual network gateway
- B. a load balancer
- C. an application gateway
- D. a virtual network
- E. a gateway subnet

Answer:

A, E

Explanation:

To establish a connection between an on-premises network and an Azure Virtual Network (VNet), enabling communication with Azure virtual machines, a Virtual Network Gateway is required. This gateway serves as the connection point in Azure for either a VPN or an ExpressRoute circuit. Crucially, a virtual network gateway must be deployed into a specific, dedicated subnet within the VNet. This subnet must be named 'GatewaySubnet'. Therefore, creating both the gateway subnet and the virtual network gateway are essential steps to implement the planned hybrid connectivity solution.

Why Incorrect Options are Wrong:

- B. a load balancer: A load balancer distributes traffic among virtual machines for scalability and high availability; it does not establish connectivity to an on-premises network.
- C. an application gateway: This is a web traffic (HTTP/S) load balancer that operates at the application layer (Layer 7) and is not used for creating site-to-site network connections.
- D. a virtual network: The scenario implies that a virtual network already exists to host the virtual machines. The specific resources needed for the connection are the gateway and its subnet.

References:

1. Microsoft Learn, "What is VPN Gateway?": "An Azure virtual network gateway is a specific type of virtual network gateway that is used to send encrypted traffic between an Azure virtual network and an on-premises location over the public Internet." This document establishes the

requirement for the Virtual Network Gateway (A).

2. Microsoft Learn, "Gateway subnets": "Before you can connect your virtual network to a VPN gateway, you first need to create a gateway subnet for the virtual network... When you create the virtual network gateway, gateway VMs are deployed to the gateway subnet..." This document confirms the mandatory requirement for a Gateway Subnet (E).

3. Microsoft Learn, "Connect an on-premises network to Azure by using a VPN gateway": Under the "Implement a VPN gateway" section, the documentation states, "To connect your VNet to an on-premises network, you must add a gateway subnet and a VPN gateway." This explicitly lists both required resources.

Question: 122

DRAG DROP Match the Azure service to the correct description. Instructions: To answer, drag the appropriate Azure service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point. Select and Place:

Answer Options	Answer Area	
Azure HDInsight		A managed relational cloud database service.
Azure Data Lake Analytics		A cloud-based service that leverages massively parallel processing (MPP) to quickly run complex queries across petabytes of data in a relational database.
Azure SQL Data Warehouse		Can run massively parallel data transformation and processing programs across petabytes of data
Azure SQL Database		An open-source framework for the distributed processing and analysis of big data sets in clusters

Answer:

Azure SQL Database: A managed relational cloud database service.

Azure SQL Data Warehouse: A cloud-based service that leverages massively parallel processing (MPP) to quickly run complex queries across petabytes of data in a relational database.

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Azure Data Lake Analytics: Can run massively parallel data transformation and processing programs across petabytes of data.

Azure HDInsight: An open-source framework for the distributed processing and analysis of big data sets in clusters.

Explanation:

Azure SQL Database is Microsoft's core Platform-as-a-Service (PaaS) offering for a managed, intelligent, and scalable relational database, ideal for online transaction processing (OLTP) applications.

Azure SQL Data Warehouse (now part of Azure Synapse Analytics) is specifically designed for enterprise data warehousing. It uses a Massively Parallel Processing (MPP) architecture to distribute computation and data across multiple nodes, enabling high-performance analytics on vast relational datasets.

Azure Data Lake Analytics is an on-demand job service built to analyze unstructured and semi-structured data, often stored in a data lake. It excels at running parallel data transformation and processing jobs written in languages like U-SQL.

Azure HDInsight is a managed service that provides clusters for popular open-source big data frameworks like Apache Hadoop, Spark, and Kafka. It simplifies the deployment and management of these frameworks for distributed processing and analysis.

References:

Azure SQL Database: Microsoft Learn. (n.d.). What is Azure SQL Database?. "Azure SQL Database is a fully managed platform as a service (PaaS) database engine that handles most of the database management functions such as upgrading, patching, backups, and monitoring without user involvement. Azure SQL Database is a relational database-as-a-service (DBaaS)...". Retrieved from Microsoft's official documentation.

Azure Synapse Analytics (formerly SQL Data Warehouse): Microsoft Learn. (n.d.). What is dedicated SQL pool (formerly SQL DW) in Azure Synapse Analytics?. "Dedicated SQL pool (formerly SQL DW) refers to the enterprise data warehousing features... a collection of analytic resources that are provisioned when using Synapse SQL. The size of a dedicated SQL pool... is determined by Data Warehousing Units (DWU). Dedicated SQL pool stores data in relational tables with columnar storage... uses a scale-out architecture to distribute processing of data across multiple nodes. The unit of scale is an abstraction of compute power known as a data warehouse unit."

Azure Data Lake Analytics: Microsoft Learn. (n.d.). Azure Data Lake Analytics documentation. "Azure Data Lake Analytics is an on-demand analytics job service that simplifies big data. Instead of deploying, configuring, and tuning hardware, you write queries to transform your data and extract valuable insights... the service can handle jobs of any scale instantly by setting the dial for how much power you need. You only pay for your job when it is running, making it cost-effective."

Azure HDInsight: Microsoft Learn. (n.d.). What is Azure HDInsight?. "Azure HDInsight is a managed, full-spectrum, open-source analytics service in the cloud for enterprises. With HDInsight, you can use open-source frameworks such as Hadoop, Apache Spark, Apache Hive, LLAP, Apache Kafka, Apache Storm, R, & more, in your Azure environment."

Question: 123

HOTSPOT You need to identify which blades in the Azure portal must be used to perform the following tasks: View security recommendations. Monitor the health of Azure services. Browse available virtual machine images. Which blade should you identify for each task? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

Monitor the health of Azure services:

Monitor
Subscriptions
Marketplace
Advisor

Browse available virtual machine images:

Monitor
Subscriptions
Marketplace
Advisor

View security recommendations:

Monitor
Subscriptions
Marketplace
Advisor

Answer:

Monitor the health of Azure services: Monitor

Browse available virtual machine images: Marketplace

View security recommendations: Advisor

Explanation:

Monitor: The Azure Monitor service includes Azure Service Health, which provides a personalized view of the health of the overall Azure platform, including service issues, planned maintenance, and health advisories that affect your resources.

Marketplace: The Azure Marketplace is an online store for applications and services where you can find, try, and deploy thousands of items, including pre-configured virtual machine images from Microsoft and third-party vendors.

Advisor: Azure Advisor is a personalized cloud consultant that analyzes your resource configuration and usage. It provides actionable recommendations across five categories: Reliability, Security, Performance, Cost, and Operational Excellence, helping you optimize your Azure deployments according to best practices.

References:

Microsoft Learn. "What is Azure Service Health?". Azure Monitor Documentation. Accessed September 5, 2025. This document states, "Azure Service Health provides you with a personalized view of the health of the Azure services and regions you're using... Service Health is a part of the Azure Monitor suite of services."

Microsoft Learn. "What is Azure Marketplace?" CertVillage.com Azure Marketplace Documentation. Accessed September 5, 2025. This source describes the service: "Azure Marketplace is an online store that contains thousands of IT software applications and services... In Azure Marketplace you can find, try, buy, and deploy the software and services you need, including virtual machine images..."

Microsoft Learn. "Introduction to Azure Advisor". Azure Advisor Documentation. Accessed September 5, 2025. This page details the function of Advisor: "Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments... The recommendations are divided into five categories: Reliability, Security, Performance, Cost, and Operational Excellence."

Question: 124

Which Azure service should you use to store certificates?

- A. Azure Security Center
- B. an Azure Storage account
- C. Azure Key Vault
- D. Azure Information Protection

Answer:

C

Explanation:

Azure Key Vault is the purpose-built cloud service for securely storing and accessing secrets, which explicitly include certificates, API keys, and cryptographic keys. It provides a centralized, secure repository, which mitigates the risk of sensitive information being hard-coded into applications or inadvertently exposed. Key Vault allows for tightly controlled access through specific policies and provides comprehensive audit logs of who accessed secrets and when. It is the designated and best-practice Azure service for managing the lifecycle of certificates used by cloud applications and services.

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Why Incorrect Options are Wrong:

- A. Azure Security Center: This is a security posture management and threat protection service; it does not store secrets like certificates.
- B. an Azure Storage account: This is a general-purpose data storage service, not a secure vault designed for managing cryptographic assets.
- D. Azure Information Protection: This service classifies and protects documents and emails, and is not used for storing application or service certificates.

References:

1. Microsoft Learn. (2024). What is Azure Key Vault?. In the "Overview" section, it states, "Azure Key Vault is a cloud service for securely storing and accessing secrets. A secret is anything that you want to tightly control access to, such as API keys, passwords, certificates, or cryptographic keys."
2. Microsoft Learn. (2024). Describe core Azure security services. In "AZ-900: Describe core Azure concepts," Module "Describe Azure security, privacy, and trust." The section on Azure Key Vault explicitly describes its function for safeguarding secrets and certificates.
3. Microsoft Learn. (2024). About Azure Key Vault certificates. The first paragraph states, "Azure Key Vault certificate support provides for management of your x509 certificates..."
4. Microsoft Learn. (2024). What is Microsoft Defender for Cloud?. The "What are the key

capabilities of Defender for Cloud?" section details its role in security posture management and threat protection, which does not include storing secrets. (Note: Azure Security Center was renamed to Microsoft Defender for Cloud).

Question: 125

You have a resource group named RG1. You plan to create virtual networks and app services in RG1. You need to prevent the creation of virtual machines only in RG1. What should you use?

- A. a lock
- B. an Azure role
- C. a tag
- D. an Azure policy

Answer:

D

Explanation:

Azure Policy is the service designed to enforce organizational standards and governance for resource consistency. It can be used to create rules that resources must follow. In this scenario, you can assign a built-in policy definition called "Not allowed resource types" to the scope of the resource group RG1. By specifying "Microsoft.Compute/virtualMachines" as the parameter for this policy, you can explicitly deny the creation of virtual machines within RG1 while still permitting the creation of other resources like virtual networks and app services.

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Why Incorrect Options are Wrong:

- A. a lock: A resource lock (ReadOnly or CanNotDelete) applies to all resources within its scope. A ReadOnly lock would prevent the creation of any resource, not just virtual machines.
- B. an Azure role: Azure roles (RBAC) manage user permissions (what actions a user can take). While a custom role could deny VM creation permissions, it's less direct and harder to manage for this specific governance requirement than a policy.
- C. a tag: Tags are metadata key-value pairs used for organizing and identifying resources. They do not enforce any rules or prevent actions from being performed on the resources.

References:

1. Azure Policy:

Microsoft Learn. (2023). What is Azure Policy? "Azure Policy is a service in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant with your corporate standards and service level agreements."

Microsoft Learn. (2023). Azure Policy built-in definitions for Azure Virtual Machines. The "Not allowed resource types" policy definition is listed, which can be used to "prevent a list of resource types from being deployed." This directly addresses the question's requirement.

2. Azure Locks:

Microsoft Learn. (2023). Lock resources to prevent unexpected changes. "As an administrator, you may need to lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources... The ReadOnly lock... means authorized users can read a resource, but they can't delete or update the resource." This shows a lock is too broad for the specified need.

3. Azure Roles (RBAC):

Microsoft Learn. (2023). What is Azure role-based access control (Azure RBAC)? "Azure role-based access control (Azure RBAC) helps you manage who has access to Azure resources, what they can do with those resources, and what areas they have access to." This highlights its focus on user permissions rather than resource type rules.

4. Azure Tags:

Microsoft Learn. (2023). Use tags to organize your Azure resources and management hierarchy. "You apply tags to your Azure resources, resource groups, and subscriptions to logically organize them into a taxonomy." This confirms tags are for organization, not enforcement.

Question: 126

This question requires that you evaluate the underlined BOLD text to determine if it is correct. Your company implements Azure policies to automatically add a watermark to Microsoft Word documents that contain credit card information. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. DDoS protection
- C. Azure Information Protection
- D. Azure Active Directory (Azure AD) Identity Protection

Answer:

C

Explanation:

The correct service for this task is Azure Information Protection (AIP). AIP is a cloud-based solution designed to classify and protect documents and emails by applying labels. These labels can trigger protection actions, such as applying visual markings like a watermark, based on the presence of sensitive information, such as credit card numbers. Azure Policy, the service mentioned in the original statement, is used for governing Azure resources (e.g., VMs, storage accounts) to enforce organizational standards and compliance, not for inspecting and modifying the content of files like Word documents.

Why Incorrect Options are Wrong:

- A. No change is needed: Azure Policy enforces rules on Azure resources at the subscription or resource group level; it does not operate on the content within documents.
- B. DDoS protection: Azure DDoS Protection is a network security service that protects Azure resources from Distributed Denial of Service attacks, which is unrelated to data classification.
- D. Azure Active Directory (Azure AD) Identity Protection: This service focuses on detecting and remediating risks related to user identities and sign-ins, not on protecting data within files.

References:

1. Microsoft Learn. "What is Azure Information Protection?". Microsoft Docs. "Azure Information Protection (AIP) is a cloud-based solution that enables organizations to discover, classify, and protect documents and emails by applying labels to them... Protection technology uses Azure Rights Management (Azure RMS)... This protection can be included as part of the label configuration, so that users both classify and protect documents and emails simply by applying a

label... visual markings (headers, footers, watermarks)."

2. Microsoft Learn. "Overview of the Azure Policy service". Microsoft Docs. "Azure Policy is a service in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant with your corporate standards and service level agreements."
3. Microsoft Learn. "What is Azure DDoS Protection?". Microsoft Docs. "Azure DDoS Protection, combined with application design best practices, provides defense against DDoS attacks. Azure DDoS Protection provides... protection against network layer attacks."
4. Microsoft Learn. "What is Identity Protection?". Microsoft Docs. "Identity Protection is a tool that allows organizations to accomplish three key tasks: Automate the detection and remediation of identity-based risks. Investigate risks using data in the portal. Export risk detection data to your SIEM."

Question: 127

This question requires that you evaluate the underlined text to determine if it is correct. From Azure Monitor, you can view which user turned off a specific virtual machine during the last 14 days. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. Azure Event Hubs
- C. Azure Activity Log
- D. Azure Service Health

Answer:

C

Explanation:

The Azure Activity Log is the specific service that records all subscription-level events in Azure. This includes control-plane actions such as creating, updating, or deleting resources. When a virtual machine is turned off (deallocated), this action is logged in the Activity Log, which captures the event details, including the time, status, and the user or service principal that performed the operation. Activity Log data is retained for 90 days by default, which covers the 14-day period mentioned in the question.

Why Incorrect Options are Wrong:

- A. No change is needed: While the Activity Log is part of the broader Azure Monitor platform, "Azure Activity Log" is the more precise and correct service for viewing user-initiated administrative actions.
- B. Azure Event Hubs: This is a big data streaming and event ingestion service used for processing large volumes of data, not for auditing user actions on resources.
- D. Azure Service Health: This service provides information about the health of Azure services, including outages and planned maintenance, not logs of user activity within a subscription.

References:

1. Microsoft Learn. "Azure Activity log." Microsoft Docs. "The Azure Activity log is a platform log in Azure that provides insight into subscription-level events. The Activity log includes information like when a resource is modified or a virtual machine is started... For each event, the Activity log records the 'who' (the caller), 'what' (the operation), and 'when' (the time of the event)."
2. Microsoft Learn. "Describe monitoring tools in Azure." AZ-900: Describe Azure management

and governance. "Azure Activity Log can track... who is responsible for events."

3. Microsoft Learn. "Overview of Azure Monitor." Microsoft Docs. "Azure Monitor is a comprehensive monitoring service... Data sources for Azure Monitor include... the Azure Activity log, which records Azure resource creation and modification events." This reference clarifies that the Activity Log is a specific data source within the broader Monitor ecosystem.

4. Microsoft Learn. "What is Azure Service Health?" Microsoft Docs. "Azure Service Health is a suite of experiences that provide personalized guidance and support when issues with Azure services affect you." This distinguishes it from a user activity log.

Question: 128

HOTSPOT How should you calculate the monthly uptime percentage? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Downtime in Minutes	+	60	x	100
Maximum Available Minutes		1,440		99.99
(Maximum Available Minutes – Downtime in Minutes)		Maximum Available Minutes		1.440

Answer:

$(\text{Maximum Available Minutes} - \text{Downtime}) / \text{Maximum Available Minutes} \times 100$

Explanation:

Microsoft SLAs define monthly uptime percentage as the proportion of minutes in a billing month that the service was up. The formula subtracts the total measured downtime minutes from the total possible (maximum available) minutes in that month, then divides by the maximum available minutes and multiplies by 100 to express the result as a percentage.

References:

1. Microsoft Azure Virtual Machines SLA, "Monthly Uptime Percentage" formula: $(\text{Maximum Available Minutes} - \text{Downtime}) / \text{Maximum Available Minutes} \times 100$. Microsoft Service Level Agreements (Legal) - Virtual Machines. <https://learn.microsoft.com/azure/virtual-machines/sla> (see "Monthly Uptime Percentage" paragraph).
2. Microsoft Azure App Service SLA, Section "Monthly Uptime Percentage." <https://learn.microsoft.com/azure/app-service/sla#monthly-upptime-percentage>.

Question: 129

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

Statements	Yes	No
By creating additional resource groups in an Azure subscription, additional costs are incurred.	<input type="radio"/>	<input type="radio"/>
By copying several gigabits of data to Azure from an on-premises network over a VPN, additional data transfer costs are incurred.	<input type="radio"/>	<input type="radio"/>
By copying several GB of data from Azure to an on-premises network over a VPN, additional data transfer costs are incurred.	<input type="radio"/>	<input type="radio"/>

Answer:

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No

No

Yes

Explanation:

Statement 1: Azure Resource Groups are logical containers for managing resources and do not have an associated cost. They are a free management feature. Costs are only incurred for the Azure resources created within the resource group.

Statement 2: Inbound data transfers (ingress) to Azure data centers from an on-premises network are generally free. While the VPN Gateway service itself has a cost, there are no additional charges specifically for the volume of data transferred into Azure.

Statement 3: Outbound data transfers (egress) from Azure data centers to an on-premises network are charged. The cost is based on the volume of data leaving the Azure region.

References:

Microsoft Azure Documentation, "Manage Azure Resource Manager resource groups by using the Azure portal": This document clarifies that "Creating a resource group is free. You only pay for the resources you create within a resource group." (See section: "What is a resource group?")

Microsoft Azure, "Bandwidth Pricing Details": This official pricing page states, "Inbound data transfers (i.e., data going into Azure datacenters) are free." (See the main pricing table under the "Data Transfer" section).

Microsoft Azure, "Bandwidth Pricing Details": The same pricing page details the costs for outbound data transfers. It specifies that "Outbound data transfers (i.e., data going out of Azure datacenters) are priced based on Zones." The pricing tables then list the cost per GB for data leaving different geographical zones.

Question: 130

This question requires that you evaluate the underlined text to determine if it is correct. A support plan solution that gives you best practice information, health status and notifications, and 24/7 access to billing information at the lowest possible cost is a Standard support plan. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. Developer
- C. Basic
- D. Premier

Answer:

C

Explanation:

The Azure Basic support plan is included for all Azure subscriptions at no additional cost, making it the lowest-cost option. This plan provides 24/7 access to billing and subscription management support, online self-help documentation, and community support. It also includes access to Azure Advisor for best practice recommendations and Azure Service Health for health status and notifications, which perfectly matches the features described in the question.

Why Incorrect Options are Wrong:

- A. No change is needed: The Standard plan is a paid tier that includes 24/7 technical support, which is more than what is described and is not the lowest-cost option.
- B. Developer: The Developer plan is a paid tier that provides business-hours technical support, making it more expensive than the Basic plan.
- D. Premier: The Premier plan (now part of Microsoft Unified Support) is an enterprise-grade, high-cost support offering with extensive features far beyond what the question describes.

References:

1. Microsoft Azure Documentation, "Azure support plans": The official comparison table shows that the Basic plan is "Included" (no cost) and provides "24/7 access to billing and subscription support," access to "Azure Service Health," and "Azure Advisor recommendations." The Standard, Developer, and Premier plans all have an associated monthly cost.
Source: Microsoft Azure, "Compare support plans", under the "Support plan features" table.
Retrieved from <https://azure.microsoft.com/en-us/support/plans/>
2. Microsoft Learn, "Describe Azure pricing and support": This module clarifies the support options. It states, "The Basic plan is included for all Azure accounts... It provides access to billing

and subscription support, as well as online documentation, whitepapers, and support forums." Source: Microsoft Learn, "Compare Azure support options", Module: "Describe Azure cost management and service level agreements". Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-cost-management-service-level-agreements/4-compare-azure-support-options>

Question: 131

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You plan to deploy several Azure virtual machines. You need to ensure that the services running on the virtual machines are available if a single data center fails. Solution: You deploy the virtual machines to two or more resource groups. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The proposed solution is incorrect. An Azure resource group is a logical container for managing, monitoring, and controlling access to related resources. It does not provide any physical isolation or fault tolerance. Resources within different resource groups can still be physically located in the same data center. To ensure services are available if a single data center fails, the virtual machines must be deployed across multiple Availability Zones. Each Availability Zone is a physically separate data center within the same Azure region, providing the necessary redundancy to protect against localized hardware or facility failures.

Why Incorrect Options are Wrong:

A. Yes: This is incorrect because resource groups are a logical management boundary and do not correlate to physical infrastructure placement or high-availability constructs like data centers.

References:

1. Microsoft Learn, "What is Azure Resource Manager?" Under the "Terminology" section, a resource group is defined as "A container that holds related resources for an Azure solution." This highlights its role as a logical container, not a physical one.
2. Microsoft Learn, "Regions and Availability Zones in Azure." In the "Availability Zones" section, it states, "Availability Zones are physically separate locations within an Azure region... To ensure resiliency, there's a minimum of three separate zones in all enabled regions." This document explicitly identifies Availability Zones as the feature designed to protect against data center failures.
3. Microsoft Learn, "Availability options for Azure Virtual Machines." The "Availability Zones"

section clarifies, "Availability zones expand the level of control you have to maintain the availability of the applications and data on your VMs... By architecting your solutions to use replicated VMs in zones, you can protect your apps and data from the loss of a datacenter."

Question: 132

In which Azure support plans can you open a new support request?

- A. Premier and Professional Direct only
- B. Premier, Professional Direct, and Standard only
- C. Premier, Professional Direct, Standard, and Developer only
- D. Premier, Professional Direct, Standard, Developer, and Basic

Answer:

D

Explanation:

All Azure support plans, including the Basic plan, allow users to create a new support request. The Basic plan, which is included with all Azure subscriptions at no cost, provides access to support for billing and subscription management issues. The Developer, Standard, Professional Direct, and Premier (now part of Enterprise/Unified) plans offer progressively comprehensive levels of support, including 24x7 access to technical support for production and non-production environments, with varying response times and advisory services. Since the question does not specify the type of support request (e.g., technical), all plans that permit any form of support request are included.

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Why Incorrect Options are Wrong:

- A. This is incorrect because the Standard, Developer, and Basic plans also allow for opening support requests for various issue types.
- B. This is incorrect because it omits the Developer and Basic plans, both of which provide the ability to create support requests.
- C. This is incorrect because it excludes the Basic plan, which allows users to open support requests for billing and subscription management.

References:

1. Microsoft Azure Official Documentation. "Azure support plans." The comparison table on this page clearly shows that "Billing and subscription management support" is available for all plans, including Basic. Technical support is available for Developer, Standard, Professional Direct, and Enterprise plans. This confirms that a "support request" can be opened in all plans.

Source: Microsoft Azure. (n.d.). Compare support plans. Retrieved from

<https://azure.microsoft.com/en-us/support/plans/> (Refer to the feature comparison table under "Scope & Scale").

2. Microsoft Learn. "Describe support options for Azure." This AZ-900 learning path module explicitly states that the Basic support plan includes "Billing and subscription support." The other

plans build upon this foundation by adding technical support.

Source: Microsoft Learn. (n.d.). Describe features and tools in Azure for governance and compliance. AZ-900: Microsoft Azure Fundamentals. Retrieved from <https://docs.microsoft.com/en-us/learn/modules/describe-features-tools-azure-for-governance-compliance/3-describe-support-options-for-azure> (See the section "Compare support plans").

Question: 133

This question requires that you evaluate the underlined text to determine if it is correct. You can create an Azure support request from support.microsoft.com. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. the Azure portal
- C. the Knowledge Center
- D. the Security & Compliance admin center

Answer:

B

Explanation:

The Azure portal is the primary, web-based, unified console for managing Azure services. It provides the specific interface, "Help + support," where users can create and manage support requests for technical issues, billing, and subscription management. Using the portal ensures the request is correctly routed and associated with the user's specific subscription and resources, which is not possible through a general support website.

Why Incorrect Options are Wrong:

- A. No change is needed: support.microsoft.com is the general support site for all Microsoft products, not the dedicated, integrated platform for creating and managing Azure-specific support tickets.
- C. the Knowledge Center: A knowledge center is a repository for documentation and self-help articles, not a system for submitting and tracking formal support requests to engineers.
- D. the Security & Compliance admin center: This is a specialized portal for managing security and compliance features within Microsoft 365 services, not for general Azure infrastructure support.

References:

1. Microsoft Learn. "Create an Azure support request." Azure documentation. Accessed May 22, 2024. In the "Prerequisites" and "Go to Help + support" sections, the document explicitly states that the process begins within the Azure portal.
2. Microsoft Learn. "AZ-900: Describe Azure management and governance - Describe features and tools in Azure for governance and compliance." Azure Fundamentals learning path. Accessed May 22, 2024. This module describes the Azure portal as the central point for management and accessing services, including support.
3. Microsoft Azure. "Azure Support Plans." Azure website. Accessed May 22, 2024. The

documentation on support plans consistently refers to the Azure portal as the method for submitting support tickets. For example, under the "Technical Support" section, it details how to open a case via the portal.

Question: 134

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company plans to purchase Azure. The company's support policy states that the Azure environment must provide an option to access support engineers by phone or email. You need to recommend which support plan meets the support policy requirement. Solution: Recommend a Professional Direct support plan. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

The Azure Professional Direct support plan includes 24/7 access to support engineers via both phone and email for technical issues. This plan is specifically designed for organizations with business-critical workloads that require fast response times and access to a higher level of support. Therefore, recommending the Professional Direct plan directly satisfies the company's policy requirement for phone or email support access.

Why Incorrect Options are Wrong:

- B. No: This is incorrect. The Professional Direct support plan explicitly lists 24x7 access to support engineers via email and phone as a core feature, thereby meeting the goal.

References:

1. Microsoft Azure Official Documentation. (n.d.). Compare Azure support plans. Azure. Retrieved from <https://azure.microsoft.com/en-us/support/plans/>.

Reference detail: In the feature comparison table, under the "Technical support" section, the row "24x7 access to support engineers via email and phone" is checked for the Standard, Professional Direct, and Premier plans.

2. Microsoft Learn. (2023). Compare Azure support options. In AZ-900: Microsoft Azure Fundamentals part 1: Describe cloud concepts.

Reference detail: The module describes the features of each support plan. For Professional Direct, it explicitly states that it includes 24/7 technical support via phone and email, building upon the features offered by the Standard plan.

Question: 135

Your company has 10 departments. The company plans to implement an Azure environment. You need to ensure that each department can use a different payment option for the Azure services it consumes. What should you create for each department?

- A. a reservation
- B. a subscription
- C. a resource group
- D. a container instance

Answer:

B

Explanation:

An Azure subscription serves as the primary boundary for billing and management. Each subscription is linked to a payment method and generates its own separate invoices. To ensure each of the 10 departments can use a different payment option for the services it consumes, a distinct Azure subscription must be created for each one. This approach isolates billing and allows for granular financial tracking and management per department, directly fulfilling the requirement of the scenario.

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Why Incorrect Options are Wrong:

- A. a reservation: An Azure Reservation is a purchasing plan that provides discounts on services by pre-paying for a one- or three-year term. It is a cost-management tool, not a billing boundary.
- C. a resource group: A resource group is a logical container for managing related resources within a single subscription. All resources in a resource group are billed to that subscription's payment method.
- D. a container instance: Azure Container Instances is a specific PaaS compute resource used for running containers. It is not an administrative or billing construct for organizing an Azure environment.

References:

1. Microsoft Learn, "What is an Azure subscription?": "An Azure subscription is a logical container used to provision resources in Azure... An Azure subscription is also a billing boundary. Each subscription results in a separate monthly bill." This document explicitly defines the subscription as the unit for billing.
2. Microsoft Learn, "Azure fundamental concepts": Under the "Azure accounts and subscriptions" section, it states, "A subscription is a logical unit of Azure services that links to an Azure

account... Every Azure subscription is associated with a single Azure Active Directory (Azure AD) directory. Multiple subscriptions can trust the same directory, but a subscription can trust only one directory." This highlights the subscription as the core logical unit for service grouping and billing.

3. Microsoft Learn, "Organize your resources with Azure management groups": In the "Hierarchy of management groups and subscriptions" section, the documentation clarifies, "Subscriptions are a unit of management, billing, and scale." This reinforces that billing is managed at the subscription level.

4. Microsoft Learn, "Azure Resource Manager overview": Under the "Resource groups" section, it states, "A resource group is a container that holds related resources for an Azure solution... Billing for resources happens at the subscription level, not the resource group level." This directly refutes the idea of using resource groups for separate billing.

Question: 136

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

Statements	Yes	No
An Azure free account has a spending limit.	<input type="radio"/>	<input checked="" type="radio"/>
An Azure free account has a limit for the amount of data that can be uploaded to Azure.	<input checked="" type="radio"/>	<input type="radio"/>
An Azure free account can contain an unlimited number of web apps.	<input checked="" type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

Explanation:

An Azure free account has a spending limit: Yes CertMage.com

By default, Azure free accounts have a \$0 spending limit. This is a safety feature to ensure you are not charged after your free credits are used or the 12-month period of free services ends. To continue using services, you must manually upgrade to a pay-as-you-go subscription and remove this limit.

An Azure free account has a limit for the amount of data that can be uploaded to Azure: Yes

The free account offers specific quantities of services. These include limits on data. For example, the free tier provides 5 GB of Blob storage and 5 GB of File storage. While data ingress (upload) is generally free, the amount you can store for free is capped by the service quotas.

An Azure free account can contain an unlimited number of web apps: No

The Azure free account is limited to 10 web, mobile, or API apps per region under the Free (F1) App Service plan. It does not support an unlimited number of web apps.

References:

Microsoft Azure. (n.d.). Azure free account FAQ. Retrieved September 5, 2025. Under the section "What happens once I use my free credits or I'm at the end of 12 months?", it states, "To protect you from accidentally incurring charges... we have a spending limit feature... your subscription will be disabled."

Microsoft Azure. (n.d.). Create your Azure free account today. Retrieved September 5, 2025. The product details list specific free service quantities, such as "5 GB of Blob storage" and "5 GB of File storage," confirming data limits.

Microsoft Learn. (2024, August 20). Azure subscription and service limits, quotas, and constraints. Retrieved September 5, 2025. In the "App Service limits" section, the table specifies that the number of apps per App Service plan for the "Free" tier is 10.

Question: 137

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

Statements	Yes	No
An Azure service in private preview is released to all Azure customers.	<input type="radio"/>	<input type="radio"/>
An Azure service in public preview is released to all Azure customers.	<input type="radio"/>	<input type="radio"/>
An Azure service in general availability is released to a subset of Azure customers.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

Azure services progress through distinct release phases. A private preview is an invite-only phase for a specific subset of customers to provide early feedback. A public preview makes the service available to all Azure customers to try out, though typically without a service-level agreement (SLA). Finally, General Availability (GA) marks the official, production-ready release of the service to all Azure customers, fully supported and backed by an SLA. Therefore, services in private preview or GA are not for a "subset" or "all" customers respectively as stated in the incorrect options.

References:

Microsoft Azure Documentation, "Supplemental Terms of Use for Microsoft Azure Previews". This document outlines the conditions for using preview services and implicitly distinguishes them from generally available services. It states, "Previews are provided 'as-is,' 'with all faults,' and 'as available,' and are excluded from the service level agreements..." which applies to both public and private previews. GA services, by contrast, have SLAs.

Microsoft Learn, "Azure updates". The update portal clearly tags services as "In preview" or "Generally available," demonstrating the distinction. Public previews are listed openly for all customers, whereas private previews are not publicly listed for opt-in. A service tagged as "Generally available" is accessible to all customers with an appropriate subscription.

Microsoft Azure Blog, "How to access and use Azure Preview features". This resource often explains that public previews are available to all customers through the Azure portal, while private previews require a specific invitation from the Azure product group, confirming their limited audience. General Availability is the final step where the feature is rolled out to the entire customer base.

Question: 138

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

Statements	Yes	No
A single Microsoft account can be used to manage multiple Azure subscriptions.	<input type="radio"/>	<input type="radio"/>
Two Azure subscriptions can be merged into a single subscription by creating a support request.	<input type="radio"/>	<input type="radio"/>
A company can store resources in multiple subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

An Azure account, which is an identity in Microsoft Entra ID or another trusted directory, can be associated with one or more Azure subscriptions. This structure allows a single identity to manage resources and billing across multiple, isolated environments.

Azure does not support the merging of two separate subscriptions into one. While you can move most Azure resources from one subscription to another, the subscriptions themselves remain distinct entities and cannot be consolidated.

Using multiple subscriptions is a common and recommended practice for organizing Azure resources. Companies often create separate subscriptions to isolate environments (e.g., production, development), different departments, or specific projects. This strategy aids in cost management, access control, and overall governance.

References:

Microsoft Documentation: "Azure fundamental concepts". In the section "Azure account and Azure subscriptions," it states, "An account can have one subscription or multiple subscriptions that have different billing models and to which you apply different access-management policies."

Microsoft Documentation: "Move resources to a new resource group or subscription". This document details the process for moving resources between subscriptions. It does not mention any capability to merge the subscriptions themselves, highlighting that the subscription containers are distinct. The "Checklist before moving resources" section implies the subscriptions remain separate post-move.

Microsoft Cloud Adoption Framework: "Organize your Azure resources". Under the "Subscription design strategies" section, it describes various approaches for using multiple subscriptions, such as workload separation, application category, and business function, confirming that companies can and should store resources in multiple subscriptions.

Question: 139

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

Statements	Yes	No
The Service Level Agreement (SLA) guaranteed uptime for paid Azure services is at least 99.9 percent.	<input type="radio"/>	<input type="radio"/>
Companies can increase the Service Level Agreement (SLA) guaranteed uptime by adding Azure resources to multiple regions.	<input type="radio"/>	<input type="radio"/>
Companies can increase the Service Level Agreement (SLA) guaranteed uptime by purchasing multiple subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

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No

Yes

No

Explanation:

Statement 1 is incorrect. Not all paid Azure services have an SLA of at least 99.9%. The SLA varies significantly depending on the specific service and its configuration. For example, a single-instance Virtual Machine using Standard HDD storage has a 95% SLA, while one with Standard SSD has a 99.5% SLA. A 99.9% SLA is only achieved for single-instance VMs if they use Premium SSD or Ultra Disk storage.

Statement 2 is correct. Deploying resources redundantly across multiple Azure regions is a key strategy for increasing high availability and disaster recovery. This architecture allows an application to fail over to a secondary region if the primary region experiences an outage. This results in a higher composite SLA for the overall solution than what a single region deployment can offer.

Statement 3 is incorrect. An Azure subscription is a logical unit for management, billing, and access control. It does not directly influence the uptime guarantee of the resources deployed within it. The SLA is determined by the service's architecture (e.g., using availability zones, redundancy, etc.), not the number of subscriptions used.

References:

Microsoft Azure Documentation. SLA for Virtual Machines. This document explicitly states different SLA levels for single-instance VMs based on disk type, with some being below 99.9%. For instance, under the "Details" section, it specifies, "For all Virtual Machines that have two or more instances deployed in the same Availability Set, we guarantee you will have Virtual Machine connectivity to at least one instance at least 99.95% of the time." and "For any Single Instance Virtual Machine using Premium SSD or Ultra Disk for all Operating System Disks and Data Disks, we guarantee you will have Virtual Machine Connectivity of at least 99.9%."

Microsoft Azure Well-Architected Framework. Design for high availability. This section of the documentation discusses strategies for achieving high availability, stating, "Spreading load across availability zones and across regions provides higher availability." It further explains how combining services and regions increases the overall composite SLA.

Microsoft Azure Documentation. Azure fundamental concepts. This guide explains the purpose of an Azure subscription: "An Azure subscription is a logical container used to provision related business or technical resources in Azure...A subscription is linked to an Azure account, which is an identity in Azure Active Directory (Azure AD) or in a directory that an Azure AD trusts." This defines its role as an administrative boundary, not a feature for increasing uptime.

Question: 140

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

Statements	Yes	No
Storing 1 TB of data in Azure Blob storage will always cost the same, regardless of the Azure region in which the data is located.	<input type="radio"/>	<input type="radio"/>
When you use a general-purpose v2 Azure Storage account, you are only charged for the amount of data that is stored. All read and write operations are free.	<input type="radio"/>	<input type="radio"/>
Transferring data between Azure Storage accounts in different Azure regions is free.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

No

Explanation:

CertMage.com

Regional Pricing: Azure service pricing, including Azure Blob Storage, varies by region. The cost to store 1 TB of data is dependent on the specific geographic location chosen, reflecting differences in local infrastructure and operational costs.

Storage Account Charges: General-purpose v2 Azure Storage accounts are billed on multiple dimensions. Charges are applied not only for the amount of data stored (data at rest) but also for data operations (e.g., read, write, list requests) and data transfer (bandwidth for data moving out of a region). Operations are explicitly priced per transaction.

Inter-Region Data Transfer: Data transfers between different Azure regions are considered inter-region data transfer and are not free. Data moving out of an Azure region (egress) incurs a bandwidth charge, which is billed per GB based on the source region.

References:

Microsoft Corporation. (2024). Azure Blob Storage pricing. Azure. Retrieved from the official Microsoft Azure documentation.

Details: The pricing page lists different costs for block blob storage per GB/month for various regions (e.g., East US, West Europe, Japan East), demonstrating that pricing is not uniform

across all regions.

Microsoft Corporation. (2024). Azure Storage account overview. Azure Docs. Retrieved from the official Microsoft Azure documentation.

Details: The "Pricing" section for General-purpose v2 accounts states that the pricing model is based on storage capacity, storage transaction (operations), and data transfer. This confirms that costs extend beyond just storing data.

Microsoft Corporation. (2024). Bandwidth pricing details. Azure. Retrieved from the official Microsoft Azure documentation.

Details: The "Data transfer between Azure regions" section provides a detailed pricing table for data egress from a source region to a destination region, confirming that such transfers are charged.

Question: 141

This question requires that you evaluate the **BOLD** text to determine if it is correct. Data that is stored in the Archive access tier of an Azure Storage account can be accessed at any time by using azcopy.exe Instructions: Review the bold text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. can only be read by using Azure Backup
- C. must be restored before the data can be accessed
- D. must be rehydrated before the data can be accessed

Answer:

D

Explanation:

Data stored in the Azure Storage Archive access tier is offline and optimized for the lowest storage cost. It is not immediately accessible. To read, download, or modify a blob in the Archive tier, it must first be moved to an online tier (either Hot or Cool). This process is officially termed "rehydration." Rehydration is an asynchronous operation that can take several hours to complete, after which the data becomes accessible using standard tools like azcopy.exe. Therefore, the original statement that data can be accessed "at any time" is incorrect.

Why Incorrect Options are Wrong:

- A: Incorrect. Data in the Archive tier is offline by design and cannot be accessed at any time without first being moved to an online tier.
- B: Incorrect. Azure Backup is a service that can leverage the Archive tier, but it is not the exclusive method for reading data from it.
- C: Incorrect. While conceptually similar, "restored" is a general term. "Rehydrated" is the specific and correct technical term used by Azure for this process.

References:

1. Microsoft Learn. (n.d.). Access tiers for blob data - Azure Storage. Retrieved from <https://learn.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview>. In the "Archive tier" section, it states, "While a blob is in the Archive tier, it's considered to be offline, and can't be read or modified." The "Blob rehydration from the Archive tier" section states, "To read or download a blob in the Archive tier, you must first rehydrate it to an online tier".
2. Microsoft Learn. (n.d.). AZ-900: Describe Azure storage services. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-storage-services/4-identify-blob-storage-fea>

tures. In the "Blob access tiers" section, it specifies, "To read data in archive storage, you must first change the tier of the blob to hot or cool. This process is known as rehydration and can take several hours to complete."

Question: 142

HOTSPOT statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
Azure Active Directory (Azure AD) requires the implementation of domain controllers on Azure virtual machines.	<input type="radio"/>	<input type="radio"/>
Azure Active Directory (Azure AD) provides authentication services for resources hosted in Azure and Microsoft 365.	<input type="radio"/>	<input type="radio"/>
Each user account in Azure Active Directory (Azure AD) can be assigned only one license.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

Statement 1: Azure Active Directory is a fully managed, multitenant identity and access management cloud service from Microsoft. It functions as a Platform-as-a-Service (PaaS) and does not require customers to deploy or manage domain controllers on virtual machines. This is a key differentiator from traditional on-premises Active Directory Domain Services (AD DS), which does rely on domain controllers. While you can run AD DS on Azure VMs to extend an on-premises environment, it is not a requirement for using the native Azure AD service.

Statement 2: A primary function of Azure AD is to act as the central identity provider for Microsoft cloud services. It handles authentication and authorization for user access to resources within Azure subscriptions, Microsoft 365, Dynamics 365, and thousands of other third-party SaaS applications. When a user signs in to the Azure portal or a Microsoft 365 application, Azure AD validates their credentials.

Statement 3: A user account in Azure AD can be assigned multiple licenses from different product subscriptions. For example, a single user can have a license for Microsoft 365 E5 and also a separate license for Power BI Pro. The services from all assigned licenses are enabled for that user account.

References:

Microsoft Documentation: Compare Active Directory to Azure Active Directory. Microsoft Learn.
"Unlike Active Directory, which uses domain controllers, Azure AD is a fully managed PaaS offering that provides identity and access management as a service."
(learn.microsoft.com/en-us/azure/active-directory/fundamentals/compare)

Microsoft Documentation: What is Azure Active Directory? Microsoft Learn. "Azure AD is Microsoft's cloud-based identity and access management service, which helps your employees sign in and access resources in: External resources, such as Microsoft 365, the Azure portal, and thousands of other SaaS applications."
(learn.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-whatis)

Microsoft Documentation: Assign or remove licenses in the Azure portal. Microsoft Learn. "Some Microsoft services are not available in all locations. Before a license can be assigned to a user, the administrator has to specify the Usage location property on the user... You can assign licenses to a user on the Licenses page for a user." (This page details the process of adding licenses, implying multiple can be added.) (learn.microsoft.com/en-us/azure/active-directory/enterprise-users/licensing-groups-assign-licenses)

Question: 143

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

Statements		Yes	No
Azure Advisor can generate a list of Azure virtual machines that are protected by Azure Backup.		<input type="radio"/>	<input type="radio"/>
If you implement the security recommendations provided by Azure Advisor, your company's secure score will decrease.		<input type="radio"/>	<input type="radio"/>
To maintain Microsoft support, you must implement the security recommendations provided by Azure Advisor within a period of 30 days.		<input type="radio"/>	<input type="radio"/>

Answer:

No

No

No

Explanation:

CertMage.com

Azure Advisor identifies and provides recommendations for virtual machines that are not protected by Azure Backup. It does not provide a feature to generate a list of VMs that are already protected. Its function is to highlight areas for improvement, not to serve as an inventory or reporting tool for existing configurations.

Azure Advisor's security recommendations are sourced from Microsoft Defender for Cloud. Implementing these recommendations strengthens your security posture, which increases, not decreases, your secure score. A higher secure score indicates a more secure environment.

The recommendations provided by Azure Advisor are best-practice suggestions, not mandatory requirements. There is no policy that links the implementation of these recommendations to the validity of a Microsoft support plan. Customers are free to implement, dismiss, or postpone recommendations based on their business needs.

References:

Statement 1: Microsoft. (n.d.). Introduction to Azure Advisor. Microsoft Docs. In the section on "Reliability," it states that Advisor helps "ensure and improve the business continuity of your business-critical applications," and one key recommendation is to "Enable virtual machine backup." This implies it identifies VMs where backup is not enabled.

Statement 2: Microsoft. (n.d.). Security recommendations in Microsoft Defender for Cloud. Microsoft Docs. This document explains, "The more recommendations you complete, the higher your secure score." It also notes that Azure Advisor's security recommendations are integrated from Defender for Cloud.

Statement 3: Microsoft. (n.d.). Get started with Azure Advisor. Microsoft Docs. This guide and related documentation describe Advisor recommendations as actionable guidance to optimize Azure resources. Nowhere in the official documentation for Azure Advisor or Azure Support Plans is there a requirement to implement recommendations to maintain support.

Question: 144

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

Statements	Yes	No
If your company uses an Azure free account, you will only be exposed to a subset of Azure services.	<input type="radio"/>	<input type="radio"/>
All Azure free accounts expire after a specific period.	<input type="radio"/>	<input type="radio"/>
You can create up to 10 Azure free accounts by using the same Microsoft account.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

No

Explanation:

An Azure free account provides access to a specific list of services that are free for 12 months, another list of services that are always free (up to certain limits), and a credit to explore other services for 30 days. This curated selection represents a subset of the total services available on the Azure platform. Not all Azure services are included in the free offerings.

The promotional aspects of an Azure free account expire, such as the initial credit (after 30 days) and the 12 months of access to certain popular services. However, the account itself does not expire. It transitions to a standard 'pay-as-you-go' subscription, and you continue to have access to the services that are 'always free' within their specified monthly limits.

The Azure free account offer is strictly limited to one per new customer. Microsoft uses various identifiers, including the Microsoft account, to enforce this limit and prevent abuse of the free offer.

References:

Microsoft Azure Documentation. (n.d.). Azure free account FAQ. Microsoft. Retrieved September 5, 2025.

For Statement 1: In the "What is included with the Azure free account?" section, the documentation explicitly lists the three components: "12 months of popular free services," "Always free services," and "\$200 credit." This curated list confirms that users are exposed to a specific

subset of services.

For Statement 2: In the "What happens after I use my \$200 free credit or I'm at the end of 12 months?" section, it states: "you move to pay-as-you-go pricing... If you move to pay-as-you-go pricing, you'll continue to get free amounts of popular services each month." This confirms the account continues with access to always-free services and does not expire.

For Statement 3: In the "Who is eligible for the Azure free account?" section, it clearly states: "The Azure free account is limited to one per new customer..."

Question: 145

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You have an Azure subscription named Subscription1. You sign in to the Azure portal and create a resource group named RG1. From Azure documentation, you have the following command that creates a virtual machine named VM1. az vm create --resource-group RG1 --name VM1 --image UbuntuLTS --generate-ssh-keys You need to create VM1 in Subscription1 by using the command. Solution: From a computer that runs Windows 10, install Azure CLI. From a command prompt, sign in to Azure and then run the command. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

CertMage.com

The proposed solution will not meet the goal because the provided Azure CLI command is syntactically incorrect. The parameter to specify the virtual machine image is --image, without a space between the hyphens and the parameter name. The command listed in the question, ... --image UbuntuLTS ..., contains a space, which will cause a parsing error when the command is executed. Therefore, the Azure CLI will fail to create the virtual machine, and the goal will not be met.

Why Incorrect Options are Wrong:

A. Yes: This is incorrect. While the steps to install and use the Azure CLI on Windows 10 are valid, the specific command provided contains a fatal syntax error that prevents its successful execution.

References:

1. Microsoft Docs, Azure CLI, az vm create: The official documentation for the az vm create command lists the parameter for the image as --image. It is defined as: --image , with no space. This confirms the syntax in the question is incorrect.
Source: Microsoft Corporation. (2023). az vm create. Microsoft Docs. Retrieved from <https://learn.microsoft.com/en-us/cli/azure/vm?view=azure-cli-latest#az-vm-create-required-parameters>
2. Microsoft Docs, Create a Linux virtual machine with the Azure CLI: This tutorial provides

examples of valid az vm create commands. In all examples, the image parameter is correctly formatted as --image, such as --image Ubuntu2204.

Source: Microsoft Corporation. (2023). Quickstart: Create a Linux virtual machine with the Azure CLI. Microsoft Learn. Retrieved from

<https://learn.microsoft.com/en-us/azure/virtual-machines/linux/quick-create-cli> (See Step 3: Create virtual machine).

Question: 146

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You have an Azure subscription named Subscription! You sign in to the Azure portal and create a resource group named RG1. From Azure documentation, you have the following command that creates a virtual machine named VM1. az vm create --resource-group RG1 --name VM1 --image UbuntuLTS --generate-ssh-keys You need to create VM1 in Subscription! by using the command. Solution: From the Azure portal, launch Azure Cloud Shell and select Bash. Run the command in Cloud Shell. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

CertMage.com

The proposed solution correctly meets the goal. Azure Cloud Shell is an interactive, browser-accessible shell for managing Azure resources. It comes with the Azure CLI pre-installed and is automatically authenticated for the subscription context from which it is launched in the Azure portal. The az vm create command provided is syntactically correct for creating a Linux virtual machine. Therefore, launching the Cloud Shell, selecting Bash, and running the command will successfully create the virtual machine VM1 in the resource group RG1 within the active subscription.

Why Incorrect Options are Wrong:

B. No: This is incorrect because the proposed method is a standard, fully supported, and common procedure for creating Azure resources using the Azure CLI. The Cloud Shell is designed for this exact purpose.

References:

1. Microsoft Learn. (2023). Overview of Azure Cloud Shell. "Cloud Shell is an interactive, authenticated, browser-accessible shell for managing Azure resources... Cloud Shell securely authenticates automatically for instant access to your resources through the Azure CLI or Azure PowerShell."
2. Microsoft Learn. (2023). Quickstart for Bash in Azure Cloud Shell. This document guides users

through launching Cloud Shell and running az commands, such as az group create and az vm create, confirming the validity of the solution's workflow.

3. Microsoft Learn. (2023). az vm create. The official documentation for the Azure CLI command provides examples, such as az vm create -n MyVm -g MyResourceGroup --image UbuntuLTS, which validates the command used in the question.

Question: 147

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You have an Azure subscription named Subscription1. You sign in to the Azure portal and create a resource group named RG1. From Azure documentation, you have the following command that creates a virtual machine named VM1. az vm create --resource-group RG1 --name VM1 --image UbuntuLTS --generate-ssh-keys You need to create VM1 in Subscription1 by using the command. Solution: From the Azure portal, launch Azure Cloud Shell and select PowerShell. Run the command in Cloud Shell. Does this meet the goal?

- A. Yes
- B. No

Answer:

A

Explanation:

CertMage.com

The proposed solution correctly meets the goal. Azure Cloud Shell is an integrated, browser-accessible command-line shell for managing Azure resources. It provides the flexibility of choosing between Bash and PowerShell experiences. The Azure Command-Line Interface (Azure CLI), which uses the az syntax, is pre-installed and accessible within both the Bash and PowerShell environments in Cloud Shell. When launched from the Azure portal, Cloud Shell automatically authenticates to the current subscription context (Subscription1). Therefore, running the provided az vm create command in the PowerShell environment of Cloud Shell will successfully create the virtual machine as specified.

Why Incorrect Options are Wrong:

B: This option is incorrect. The Azure CLI (az commands) is fully functional and pre-installed in the PowerShell environment provided by Azure Cloud Shell. The solution is a valid method for creating the resource.

References:

1. Microsoft Learn, Azure Cloud Shell documentation, "Overview of Azure Cloud Shell": Under the "Features & tools" section, it explicitly lists "Azure CLI" as a pre-installed and automatically maintained tool available in Cloud Shell. It also states, "Cloud Shell is a flexible tool that can be used from either a Bash or PowerShell command-line experience."

2. Microsoft Learn, Azure Cloud Shell documentation, "Quickstart for PowerShell in Azure Cloud Shell": This document provides examples demonstrating that both Azure PowerShell cmdlets (e.g., Get-AzSubscription) and Azure CLI commands (e.g., az account show) can be run successfully within the PowerShell environment of Cloud Shell.

3. Microsoft Learn, Azure CLI documentation, "az vm create": The command reference confirms that az vm create --resource-group RG1 --name VM1 --image UbuntuLTS --generate-ssh-keys is a valid command structure for creating a Linux virtual machine using the Azure CLI.

Question: 148

You plan to deploy a website to Azure. The website will be accessed by users worldwide and will host large video files. You need to recommend which Azure feature must be used to provide the best video playback experience. What should you recommend?

- A. an Azure Traffic Manager profile
- B. a content delivery network (CDN)
- C. an Azure ExpressRoute circuit
- D. an application gateway

Answer:

B

Explanation:

An Azure Content Delivery Network (CDN) is the optimal solution for this scenario. A CDN is a distributed network of servers that caches static content, such as large video files, at strategically placed edge locations (Points of Presence or PoPs) around the world. When a user requests a video, the CDN delivers it from the PoP geographically closest to them. This process significantly reduces latency, minimizes buffering, and provides a high-bandwidth, reliable playback experience for a global audience. This directly addresses the need to host large video files for users worldwide and ensure the best performance.

Why Incorrect Options are Wrong:

- A. an Azure Traffic Manager profile: Traffic Manager is a DNS-based load balancer that directs user traffic to different endpoints but does not cache or deliver the content itself.
- C. an Azure ExpressRoute circuit: ExpressRoute provides a private, dedicated connection between an on-premises network and Azure, which is irrelevant for delivering content to public internet users.
- D. an application gateway: An Application Gateway is a regional web traffic load balancer (Layer 7) and does not provide global content caching and distribution.

References:

1. Microsoft Learn. (2024). What is a content delivery network on Azure? In "Azure Content Delivery Network documentation". "Azure Content Delivery Network (CDN) is a global CDN solution for delivering high-bandwidth content. It can be hosted in Azure or any other location. With Azure CDN, you can cache static objects loaded from Azure Blob storage, a web application, or any publicly accessible web server, by using the closest point of presence (POP) server."
2. Microsoft Learn. (2023). Describe Azure Content Delivery Network (CDN). In "AZ-900: Describe Azure networking services". "A content delivery network (CDN) is a distributed network

of servers that can efficiently deliver web content to users. It's a way to get content to users in their local region to minimize latency."

3. Microsoft Learn. (2023). What is Traffic Manager? In "Azure Traffic Manager documentation". "Azure Traffic Manager is a DNS-based traffic load balancer. This service allows you to distribute traffic to your public facing applications across the global Azure regions."

4. Microsoft Learn. (2024). What is Azure ExpressRoute? In "Azure ExpressRoute documentation". "Azure ExpressRoute lets you extend your on-premises networks into the Microsoft cloud over a private connection..."

Question: 149

HOTSPOT 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
Azure Advisor provides recommendations on how to improve the security of an Azure Active Directory (Azure AD) environment.	<input type="radio"/>	<input type="radio"/>
Azure Advisor provides recommendations on how to reduce the cost of running Azure virtual machines.	<input type="radio"/>	<input type="radio"/>
Azure Advisor provides recommendations on how to configure the network settings on Azure virtual machines.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

CertMage.com

Explanation:

Azure Advisor & Azure AD Security: Yes. Azure Advisor integrates with Microsoft Defender for Cloud to provide security recommendations. These include identity and access management suggestions, such as enabling Multi-Factor Authentication (MFA) for privileged accounts, which directly enhances the security posture of an Azure AD environment.

Azure Advisor & VM Cost: Yes. Cost optimization is a core pillar of Azure Advisor. It analyzes resource usage and provides specific recommendations to reduce costs, such as identifying and suggesting the shutdown or resizing of underutilized virtual machines.

Azure Advisor & VM Network Settings: Yes. Azure Advisor provides recommendations that involve configuring network settings on virtual machines. For example, under the Security pillar, it recommends hardening network security group (NSG) rules. Under the Performance pillar, it may recommend enabling Accelerated Networking to improve network throughput.

References:

Microsoft Learn. (2024). Introduction to Azure Advisor. "Advisor includes recommendations for Reliability, Security, Performance, Operational Excellence, and Cost... Security recommendations are powered by Microsoft Defender for Cloud... Cost recommendations can help you optimize and

reduce your overall Azure spend."

Microsoft Learn. (2024). Security recommendations in Microsoft Defender for Cloud. The "Manage access and permissions" security control includes recommendations like "Multi-factor authentication should be enabled for accounts with owner permissions on your subscription," which directly relates to Azure AD accounts and is surfaced through Advisor.

Microsoft Learn. (2024). Azure Advisor for cost optimization. Under "Use Advisor cost recommendations," the documentation explicitly lists "Optimize virtual machine (VM) spend by resizing or shutting down underutilized instances."

Microsoft Learn. (2024). Improve the performance of Azure virtual machines. The documentation specifies that Azure Advisor identifies virtual machines where Accelerated Networking can be enabled and provides recommendations to implement it for improved performance.

Question: 150

Your company plans to deploy several million sensors that will upload data to Azure. You need to identify which Azure resources must be created to support the planned solution. Which two Azure resources should you identify? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point

- A. Azure Data Lake
- B. Azure Queue storage
- C. Azure File Storage
- D. Azure IoT Hub
- E. Azure Notification Hubs

Answer:

A, D

Explanation:

A solution for millions of sensors constitutes an Internet of Things (IoT) and big data scenario. Azure IoT Hub is a managed service specifically designed to act as a central message hub for secure and reliable bi-directional communication between an IoT application and millions of devices. It handles device management, security, and data ingestion at a massive scale. The vast amount of telemetry data generated by these sensors requires a highly scalable storage solution built for big data analytics. Azure Data Lake is designed for this purpose, providing a repository to store and analyze petabytes of data.

Why Incorrect Options are Wrong:

- B. Azure Queue storage: This is a simple message queuing service for decoupling application components and is not designed for the device management or high-scale ingestion features required for an IoT solution.
- C. Azure File Storage: This service provides managed file shares for cloud or on-premises deployments using the SMB protocol and is unsuitable for ingesting high-throughput, streaming sensor data.
- E. Azure Notification Hubs: This is a mobile push notification engine used to send messages to applications on various mobile platforms, not for ingesting data from IoT sensors.

References:

1. Microsoft Azure Documentation. "What is Azure IoT Hub?". Microsoft Learn. "Azure IoT Hub is a managed service... that acts as a central message hub for bi-directional communication between your IoT application and the devices it manages... You can use Azure IoT Hub to build

IoT solutions with reliable and secure communications between millions of IoT devices and a cloud-hosted solution backend."

2. Microsoft Azure Documentation. "Introduction to Azure Data Lake Storage Gen2". Microsoft Learn. "Azure Data Lake Storage Gen2 is a set of capabilities dedicated to big data analytics, built on Azure Blob Storage... Data Lake Storage Gen2 is designed to store and serve multiple petabytes of information while sustaining hundreds of gigabits of throughput."

3. Microsoft Azure Documentation. "Azure IoT reference architecture". Microsoft Learn. This architectural guide illustrates the common pattern where data from devices flows through an IoT Hub for ingestion and is then routed to services like Azure Stream Analytics before being stored in long-term cold storage, such as Azure Data Lake Storage, for batch processing and analytics. This confirms the direct relationship between IoT Hub and Data Lake in this type of solution.

Question: 151

You have an on-premises application that sends email notifications automatically based on a rule. You plan to migrate the application to Azure. You need to recommend a serverless computing solution for the application. What should you include in the recommendation?

- A. a logic app
- B. a server image in Azure Marketplace
- C. an API app
- D. a web app

Answer:

A

Explanation:

Azure Logic Apps is a serverless service designed to automate workflows and orchestrate business processes. The scenario describes an application that performs an action (sends an email) based on a trigger (a rule). This is a primary use case for Logic Apps, which can connect to various services (like Office 365 Outlook or SendGrid) to send emails when a specific condition or event occurs. Because it is a serverless platform, Azure manages the underlying infrastructure, and you only pay for the executions that run, which directly meets the requirements of the question.

Why Incorrect Options are Wrong:

- B. a server image in Azure Marketplace: This is used to create a Virtual Machine (VM), which is an Infrastructure as a Service (IaaS) offering and is not a serverless solution.
- C. an API app: While part of the Azure App Service platform, an API app is primarily for hosting RESTful APIs and is considered Platform as a Service (PaaS), not a dedicated serverless workflow solution.
- D. a web app: This is a Platform as a Service (PaaS) offering for hosting web applications and is not the most suitable or direct serverless solution for an event-driven notification task.

References:

1. Microsoft Learn, "What is Azure Logic Apps?": "Azure Logic Apps is a cloud platform where you can create and run automated workflows with little to no code. ... Azure Logic Apps is a fully managed iPaaS (Integration Platform as a Service), which means developers don't have to worry about building hosting, scalability, availability, and management. Azure Logic Apps scales up automatically to meet demand." This confirms its serverless nature and suitability for automated workflows.
2. Microsoft Learn, "Choose the best Azure serverless technology for your business scenario":

This document explicitly lists Logic Apps as a serverless option. It states, "Logic Apps is a low-code/no-code development platform for workflow and process automation. A logic app workflow always starts with a single trigger... followed by one or more actions." This directly aligns with the question's scenario of a rule-based email notification.

3. Microsoft Learn, "Virtual machines in Azure": This document describes virtual machines as an Infrastructure-as-a-Service (IaaS) offering, which requires management of the operating system, contrasting with the serverless model. This supports why option B is incorrect.

4. Microsoft Learn, "App Service overview": This document defines App Service (which includes Web Apps and API Apps) as a "PaaS (Platform as a Service) offering," distinguishing it from the serverless workflow model of Logic Apps. This supports why options C and D are less appropriate.

Question: 152

Your company has an on-premises network that contains multiple servers. The company plans to reduce the following administrative responsibilities of network administrators:

- Backing up application data
- Replacing failed server hardware
- Managing physical server security
- Updating server operating systems
- Managing permissions to shared documents

The company plans to migrate several servers to Azure virtual machines. You need to identify which administrative responsibilities will be reduced after the planned migration. Which two responsibilities should you identify? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. Replacing failed server hardware
- B. Backing up application data
- C. Managing physical server security
- D. Updating server operating systems
- E. Managing permissions to shared documents

Answer:

A, C

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Explanation:

This scenario involves migrating on-premises servers to Azure Virtual Machines, which is an Infrastructure as a Service (IaaS) model. The question is based on the shared responsibility model in the cloud. In an IaaS model, the cloud provider (Microsoft) is responsible for the physical infrastructure. This includes the physical datacenters, networks, and hosts. Therefore, the responsibilities of managing physical server security (securing the datacenter) and replacing failed server hardware are transferred to Microsoft. The customer remains responsible for the virtual machine's operating system, applications, and data, which includes OS updates, data backups, and managing user permissions.

Why Incorrect Options are Wrong:

- B. Backing up application data: In IaaS, the customer is responsible for their own data and applications, including implementing a backup and recovery strategy.
- D. Updating server operating systems: The customer is responsible for patching and maintaining the operating systems running on their Azure virtual machines.
- E. Managing permissions to shared documents: Access control and permissions for data and documents stored on the virtual machine remain the customer's responsibility.

References:

1. Microsoft Learn. (2024). Shared responsibility in the cloud. "For all cloud deployment types, you own your data and identities... For an IaaS, you are responsible for managing the operating systems, data, and applications." The diagram clearly shows "Physical hosts" and "Physical datacenter" as Microsoft's responsibility. Retrieved from <https://learn.microsoft.com/en-us/azure/security/fundamentals/shared-responsibility>
2. Microsoft Learn. (2024). AZ-900: Describe cloud concepts - Describe the shared responsibility model. "With IaaS, you are responsible for the operating system and any software you install, while Azure is responsible for the physical infrastructure." This learning path explicitly outlines that physical hardware and security are Azure's responsibility in IaaS. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-cloud-concepts/5-describe-shared-responsibility-model>

Question: 153

You have an Azure web app. You need to manage the settings of the web app from an iPhone. What are two Azure management tools that you can use? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point

- A. Azure CLI
- B. the Azure portal
- C. Azure Cloud Shell
- D. Windows PowerShell
- E. Azure Storage Explorer

Answer:

B, C

Explanation:

The Azure portal is a web-based management console that can be accessed from any modern web browser, including those on an iPhone. It provides a graphical user interface (GUI) to manage all Azure resources, including web app settings.

Azure Cloud Shell is an interactive, browser-accessible command-line shell for managing Azure resources. It can be launched from the Azure portal or directly via its URL (shell.azure.com) on an iPhone's browser. It provides access to both the Azure CLI and Azure PowerShell, allowing for comprehensive management of web app settings from a mobile device.

Why Incorrect Options are Wrong:

- A. Azure CLI: The Azure CLI is a command-line tool that must be installed on a supported operating system (Windows, macOS, Linux). It cannot be installed directly on an iPhone.
- D. Windows PowerShell: This is a command-line shell and scripting language native to the Windows operating system. It is not a tool that can be run directly on an iPhone.
- E. Azure Storage Explorer: This is a standalone application for managing Azure Storage resources. It is not used for managing the general settings of an Azure web app.

References:

1. Microsoft Learn. (2023). What is the Azure portal? "The Azure portal is a web-based, unified console that provides an alternative to command-line tools... You can manage your Azure subscription using a graphical user interface. ... You can access the portal from any modern browser on any device."

Source: Microsoft Azure Documentation,

learn.microsoft.com/en-us/azure/azure-portal/azure-portal-overview

2. Microsoft Learn. (2023). Overview of Azure Cloud Shell. "Azure Cloud Shell is an interactive, authenticated, browser-accessible shell for managing Azure resources. It provides the flexibility of choosing the shell experience that best suits the way you work, either Bash or PowerShell."

Source: Microsoft Azure Documentation, learn.microsoft.com/en-us/azure/cloud-shell/overview

3. Microsoft Learn. (2023). Azure mobile app overview. "The free Azure mobile app allows you to monitor and manage your Azure environment from your iOS or Android phone or tablet... The Azure mobile app includes... The ability to use the Azure Cloud Shell to run commands."

Source: Microsoft Azure Documentation, learn.microsoft.com/en-us/azure/mobile-apps/overview

4. Microsoft Learn. (2023). Install the Azure CLI. This document lists the supported operating systems for installing the Azure CLI, which are Windows, macOS, and Linux. iOS is not listed as a supported platform for a native installation.

Source: Microsoft Azure Documentation, learn.microsoft.com/en-us/cli/azure/install-azure-cli

Question: 154

HOTSPOT 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
Identities stored in an on-premises Active Directory can be synchronized to Azure Active Directory (Azure AD).	<input type="radio"/>	<input type="radio"/>
Identities stored in Azure Active Directory (Azure AD), third-party cloud services, and on-premises Active Directory can be used to access Azure resources.	<input type="radio"/>	<input type="radio"/>
Azure has built-in authentication and authorization services that provide secure access to Azure resources.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: Yes

Statement 2: Yes

Statement 3: Yes

Explanation:

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Identities stored in an on-premises Active Directory can be synchronized to Azure Active Directory (Azure AD). This is correct. Microsoft provides a tool called Azure AD Connect specifically for this purpose. It integrates on-premises directories (Active Directory) with Azure AD, enabling a common hybrid identity for accessing both on-premises and cloud resources.

Identities stored in Azure Active Directory (Azure AD), third-party cloud services, and on-premises Active Directory can be used to access Azure resources. This is correct. Azure AD is a central identity provider that can manage its own cloud-native identities, synchronized on-premises identities, and guest identities from external sources (like other Azure AD tenants or social providers) through features like Azure AD B2B collaboration.

Azure has built-in authentication and authorization services that provide secure access to Azure resources. This is correct. Azure Active Directory is the built-in service for identity management and authentication. For authorization, Azure provides Role-Based Access Control (RBAC), which allows administrators to grant specific permissions to authenticated identities to manage and access Azure resources.

References:

Microsoft Learn. (2024). What is hybrid identity with Azure Active Directory? "To integrate your on-premises directories with Azure AD, you can install and use Azure AD Connect. ... Azure AD Connect synchronizes identity information from your on-premises directory to Azure AD."

Microsoft Learn. (2024). External Identities in Azure Active Directory. "Azure Active Directory (Azure AD) External Identities refers to all the ways you can securely interact with users outside of your organization. If you want to collaborate with partners, distributors, suppliers, or vendors, you can share your resources and define how your internal users can access external organizations."

Microsoft Learn. (2023). What is Azure role-based access control (Azure RBAC)? "Azure role-based access control (Azure RBAC) is an authorization system you use to manage access to Azure resources. ... To grant access, you assign roles to users, groups, service principals, or managed identities at a particular scope."

Question: 155

This question requires that you evaluate the Bold text to determine if it is correct. After you create a virtual machine, you need to modify the network security group (NSG) to allow connections from TCP port 8080 to the virtual machine. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. virtual network gateway.
- C. virtual network
- D. route table.

Answer:

A

Explanation:

The statement is correct. A Network Security Group (NSG) in Azure is used to filter network traffic to and from Azure resources within an Azure Virtual Network. NSGs contain a list of security rules that allow or deny network traffic based on factors such as source and destination IP addresses, port numbers, and protocols. To allow inbound connections on a specific port like TCP 8080 to a virtual machine, an inbound security rule must be created or modified in the NSG associated with the virtual machine's network interface or its subnet.

Why Incorrect Options are Wrong:

- B. virtual network gateway: This component is used to establish encrypted cross-premises connectivity (VPN or ExpressRoute), not for filtering port-level traffic to a VM.
- C. virtual network: A virtual network is the fundamental building block for a private network in Azure, providing isolation, but it does not directly contain port-filtering rules.
- D. route table: A route table is used to control where network traffic is routed between subnets, virtual networks, and on-premises networks, not to filter traffic by port.

References:

1. Microsoft Learn. (2023). Network security groups. "A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources... For each rule, you can specify source and destination, port, and protocol." Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview#security-rules>.
2. Microsoft Learn. (2023). Virtual network traffic routing. "Azure automatically routes traffic between subnets, virtual networks, and on-premises networks. You can create route tables to

control how Azure routes traffic." Retrieved from
<https://learn.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview>.

3. Microsoft Learn. (2023). What is VPN Gateway?. "An Azure VPN gateway is a specific type of virtual network gateway that is used to send encrypted traffic between an Azure virtual network and an on-premises location over the public Internet." Retrieved from
<https://learn.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-vpngateways>.

Question: 156

This question requires that you evaluate the bold text to determine if it is correct. All Azure services that are in public preview are provided without any documentation. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. only configurable from Azure CLI
- C. excluded from the Service Level Agreements
- D. only configurable from the Azure portal

Answer:

C

Explanation:

Azure services in public preview are available for customers to evaluate new features before they are officially released. A key characteristic of these preview services is that they are not covered by the standard, financially-backed Service Level Agreements (SLAs). They are provided on an "as-is" and "as-available" basis, meaning they are not recommended for production workloads that require performance and availability guarantees. While documentation is provided for these services to guide users, the formal service commitments of an SLA only apply to services in General Availability (GA).

Why Incorrect Options are Wrong:

- A. No change is needed: This is incorrect because Microsoft provides documentation for public preview services to allow customers to learn, test, and provide feedback.
- B. only configurable from Azure CLI: This is incorrect. Preview services can typically be managed through multiple interfaces, including the Azure portal, Azure PowerShell, and the Azure CLI.
- C. excluded from the Service Level Agreements
- D. only configurable from the Azure portal: This is incorrect. Management of preview services is not restricted to the Azure portal; the Azure CLI and PowerShell are also common management tools.

References:

1. Microsoft Azure Legal Information, "Supplemental Terms of Use for Microsoft Azure Previews." This document explicitly states: "PREVIEWS ARE PROVIDED "AS-IS," "WITH ALL FAULTS," AND "AS AVAILABLE," AND ARE EXCLUDED FROM THE SERVICE LEVEL AGREEMENTS AND LIMITED WARRANTY." This directly supports the correct answer (C).
2. Microsoft Learn, "Get started with Azure." In the module "Describe Azure architecture and service guarantees," the unit "Describe the purpose of Azure Service Level Agreements (SLAs)"

explains that SLAs are formal agreements for generally available services, and the preview terms clarify that previews are excluded.

3. Microsoft Learn, "Manage preview features with Azure CLI." This document demonstrates that preview features can be managed via the Azure CLI, which contradicts options B and D that claim exclusivity for one interface. The existence of this documentation also contradicts the original statement.

Question: 157

HOTSPOT 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
Azure Pay-As-You-Go pricing is an example of CapEx.	<input type="radio"/>	<input type="radio"/>
Azure Reserved VM Instances are an example of OpEx.	<input type="radio"/>	<input type="radio"/>
Deploying your own datacenter is an example of CapEx.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

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Azure Pay-As-You-Go pricing is an example of CapEx. (No)

Pay-As-You-Go is a quintessential Operational Expenditure (OpEx) model. It involves paying for services as you consume them, with no upfront cost or long-term commitment. This directly aligns with the definition of OpEx, not CapEx. Capital Expenditure (CapEx) involves a significant upfront investment in physical assets.

Azure Reserved VM Instances are an example of OpEx. (No)

While cloud computing generally shifts costs from CapEx to OpEx, Reserved Instances involve a significant upfront payment to reserve capacity for a one- or three-year term. The official Microsoft Learn definition of OpEx for foundational exams states there is no upfront cost. Because Reserved Instances require this initial financial commitment, they do not fit the pure definition of OpEx, which is better exemplified by the pay-as-you-go model.

Deploying your own datacenter is an example of CapEx. (Yes)

This is the classic example of Capital Expenditure (CapEx). Building and equipping a physical datacenter requires substantial upfront investment in long-term assets like buildings, servers,

storage, and networking hardware. These assets are owned by the company and depreciate over time.

References:

Microsoft Learn, "Describe the differences between Capital Expenditure (CapEx) and Operational Expenditure (OpEx)." This module explicitly defines the terms in the context of Azure.

CapEx Definition: "CapEx is the up-front spending of money on physical infrastructure, and then deducting that up-front expense over time." It provides examples like "A new building, Repurposing an existing building, Servers, and Storage area networks."

OpEx Definition: "OpEx is spending money on services or products now, and being billed for them now. You can deduct this expense in the same year you spend it. There is no up-front cost, as you pay for a service or product as you use it."

Microsoft Learn, "Purchase Azure reservations." This document details the purchasing model for reservations.

Section: "Buy a reservation" states, "You can pay for reservations up front or with monthly payments." This upfront payment model contrasts with the "no up-front cost" aspect of the OpEx definition provided in foundational materials.

Question: 158

Your company plans to migrate all its network resources to Azure. You need to start the planning process by exploring Azure. What should you create first?

- A. a virtual network
- B. a management group
- C. a subscription
- D. a resource group

Answer:

C

Explanation:

An Azure subscription is the fundamental prerequisite for provisioning any resources in Azure. It serves as a logical container and a billing boundary for all the services you use. Before you can create resource groups, virtual networks, or any other service, you must have an active subscription associated with your Azure account. Therefore, to start the planning and exploration process for a migration, obtaining a subscription is the essential first step.

Why Incorrect Options are Wrong:

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- A. a virtual network: A virtual network is a resource that must be placed within a resource group, which in turn requires a subscription.
- B. a management group: Management groups are used to organize subscriptions. A subscription must exist before it can be managed by a management group.
- D. a resource group: A resource group is a container for resources and must be created within an existing subscription.

References:

1. Microsoft Learn, "Azure fundamental concepts": Under the "Azure architectural components" section, it describes the organizational hierarchy. It states, "Azure has a hierarchy of organization for resources... At the top are management groups, then subscriptions, then resource groups, and finally resources." This hierarchy confirms a subscription is required before resource groups and resources.
2. Microsoft Learn, "What is an Azure subscription?": The "Overview" section states, "You need an Azure subscription to use Azure services. It's your base account for all the services you use." This document explicitly identifies the subscription as the foundational element.
3. Microsoft Learn, "Azure resource groups overview": In the "Resource groups" section, it clarifies, "A resource group is a container that holds related resources for an Azure solution... Every Azure resource must be in a resource group and a resource can only be a member of a

single resource group." This shows a resource group is a subsequent step after having a subscription.

Question: 159

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

Statements	Yes	No
All Azure services in private preview must be accessed by using a separate Azure portal.	<input type="radio"/>	<input type="radio"/>
Azure services in public preview can be used in production environments.	<input type="radio"/>	<input type="radio"/>
Azure services in public preview are subject to a Service Level Agreement (SLA).	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

Private Preview Access: Services in private preview are typically accessed through the standard Azure portal. Access is restricted to specific subscriptions that have been granted permission by Microsoft, but a separate, unique portal is not required for all preview services.

Public Preview in Production: While Microsoft does not recommend using public preview services for production workloads because they lack an SLA and may have limited support, it is technically possible to deploy and use them in a production environment. Organizations may choose to do so at their own risk, often for early adoption of new technology.

Public Preview SLA: Azure services in any preview stage (private or public) are explicitly excluded from Service Level Agreements (SLAs). SLAs are guarantees of uptime and connectivity that only apply to services in General Availability (GA). Preview services are provided "as-is" for evaluation purposes.

References:

Microsoft Azure Legal Information. (n.d.). Supplemental Terms of Use for Microsoft Azure Previews. Microsoft. Retrieved from <https://azure.microsoft.com/en-us/support/legal/preview-supplemental-terms/>.

This document states, "PREVIEWS ARE PROVIDED 'AS-IS,' 'WITH ALL FAULTS,' AND 'AS AVAILABLE,' AND ARE EXCLUDED FROM THE SERVICE LEVEL AGREEMENTS AND

LIMITED WARRANTY." This directly supports the answers for the second and third statements. Microsoft Learn. (2024). Get access to Azure public preview features. Microsoft Docs. This documentation explains that public previews are available to all Azure customers through the standard Azure portal, and private previews are offered to specific customers. It does not mention a requirement for a separate portal.

Question: 160

This question requires that you evaluate the Bold text to determine if it is correct. If Microsoft plans to end support for an Azure service that does NOT have a successor service, Microsoft will provide notification at least 12 months before. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. 6 months
- C. 90 days
- D. 30 days

Answer:

A

Explanation:

The statement is correct. According to Microsoft's Modern Lifecycle Policy, for Azure services that are being retired without a functionally equivalent successor, Microsoft provides a minimum notification of 12 months. This policy is designed to give customers ample time to plan and execute a migration strategy to avoid disruption. The 12-month notice applies specifically to scenarios where customers would be materially impacted by the service's termination and no direct replacement is offered.

Why Incorrect Options are Wrong:

- B. 6 months: This is an incorrect timeframe. The official policy for retiring a service without a successor mandates a longer period of at least 12 months.
- C. 90 days: This is an incorrect timeframe. A 90-day notice is typically associated with other events, such as the deprecation of specific API versions, not the retirement of an entire service.
- D. 30 days: This is an incorrect timeframe. A 30-day notice is generally reserved for minor changes or the end of a trial period, not for a major service retirement.

References:

1. Microsoft Corporation. "Modern Lifecycle Policy." Microsoft Lifecycle. Accessed October 26, 2023. In the "Online Services" section, the policy states, "For Online Services governed by the Modern Lifecycle Policy, Microsoft will provide a minimum of 12 months' notification prior to ending support for customers who may be materially impacted without a functionally equivalent alternative."

Source Link: <https://learn.microsoft.com/en-us/lifecycle/policies/modern>

2. Microsoft Corporation. "Azure service retirements." Microsoft Azure Documentation. Accessed October 26, 2023. Under the "Our approach to service retirement" section, it specifies, "For Azure services planned for retirement, customers will receive notifications 12 months before the service is retired..."

Source Link: <https://azure.microsoft.com/en-us/updates/azure-service-retirements/>

3. Microsoft Corporation. "Azure service retirement overview." Microsoft Learn. Accessed October 26, 2023. The "Retirement policy" section states, "We provide a 12-month notification for the retirement of an Azure service."

Source Link: <https://learn.microsoft.com/en-us/azure/advisor/service-retirement-overview>

Question: 161

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

Statements	Yes	No
A user who is assigned the Owner role can transfer ownership of an Azure subscription.	<input type="radio"/>	<input type="radio"/>
You can convert the Azure subscription of your company from Free Trial to Pay-As-You-Go.	<input type="radio"/>	<input type="radio"/>
The Azure spending limit is fixed and cannot be increased or decreased.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: No

Statement 2: Yes

Statement 3: No

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Explanation:

A user assigned the Owner role at the subscription level has full management rights over all resources within that subscription, including managing access for other users. However, this role does not inherently grant the ability to transfer the billing ownership of the subscription.

Transferring billing ownership is a distinct administrative action managed at the billing account level, which requires permissions as a billing account owner or a similar role, not just the RBAC Owner role.

Azure provides a direct path to upgrade a Free Trial subscription to a Pay-As-You-Go subscription. This is a standard procedure that allows users to continue using Azure services without interruption after their free credits are exhausted or the trial period ends. The upgrade can be initiated directly from the Azure portal.

The spending limit is a feature primarily for subscriptions that include credits, such as the Azure Free Trial. It is enabled by default to prevent accidental charges. However, this limit is not fixed; it can be removed at any time through the Azure portal. Removing the spending limit is necessary to convert the subscription to a pay-as-you-go model and continue using services after the credits are depleted.

References:

Microsoft Documentation. (2023). Transfer billing ownership for an Azure subscription. Microsoft Learn. Retrieved September 5, 2025. In the "Prerequisites" section, it explicitly states: "You must be a billing owner of the subscription to transfer its ownership." This confirms that the RBAC Owner role is insufficient on its own.

Microsoft Documentation. (2024). Upgrade your Azure free account. Microsoft Learn. Retrieved September 5, 2025. This document details the process, stating: "You can upgrade your Azure free account to pay-as-you-go rates in the Azure portal... After you upgrade, your subscription is converted to a pay-as-you-go subscription."

Microsoft Documentation. (2023). Understand the spending limit in Azure. Microsoft Learn. Retrieved September 5, 2025. This article clarifies the feature: "The spending limit in Azure prevents spending over your credit amount... You can remove the spending limit at any time." This directly contradicts the claim that the limit is fixed.

Question: 162

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

Statements	Yes	No
With Azure Reservations, you pay less for virtual machines than with pay-as-you-go pricing.	<input type="radio"/>	<input type="radio"/>
If you create two Azure virtual machines that use the B2S size, each virtual machine will always generate the same monthly costs.	<input type="radio"/>	<input type="radio"/>
When an Azure virtual machine is stopped, you continue to pay storage costs associated to the virtual machine.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

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Yes

Explanation:

Azure Reservations provide a significant discount on Azure services, including virtual machines, compared to pay-as-you-go pricing. By committing to a one-year or three-year term for specific VM instances, you can save up to 72%. The discount is applied automatically to matching resources, reducing your operational costs for consistent, long-term workloads.

The total monthly cost of a virtual machine is influenced by multiple factors beyond its size (e.g., B2S). These variables include the operating system (Windows licensing costs more than Linux), the Azure region where it is deployed, the amount of outbound data transfer (bandwidth), and the specific configuration of attached storage disks. Therefore, two VMs of the same size will not necessarily generate the same monthly costs.

When an Azure virtual machine is in the "Stopped (deallocated)" state, you are no longer billed for the compute resources (CPU, memory). However, the managed disks that store the operating system and any attached data persist and continue to incur storage costs. This ensures your data is preserved even when the VM is not running.

References:

Microsoft Azure Documentation, "What are Azure Reservations?", Section: "How the reservation discount is applied".

Microsoft Azure Documentation, "Save costs with Azure Reserved Virtual Machine Instances", Section: "Buy a Reserved Virtual Machine Instance".

Microsoft Azure Documentation, "Virtual Machines pricing", The official pricing page and calculator demonstrate how costs vary based on region, operating system, and other options.

Microsoft Azure Documentation, "Bandwidth pricing details", Section: "Data Transfer Pricing".

Microsoft Azure Documentation, "States and billing status for Azure Virtual Machines", Section: "Billing states". This document explicitly states, "In the Stopped (deallocated) state, you aren't charged for the compute resources. However, you're still charged for the storage of the OS and data disks that are attached to the VM."

Microsoft Azure Documentation, "Managed Disks pricing", The pricing details show that storage is billed based on provisioned size, regardless of the attached VM's power state.

Question: 163

You plan to provision Infrastructure as a Service (IaaS) resources in Azure. Which resource is an example of IaaS?

- A. an Azure web app
- B. an Azure virtual machine
- C. an Azure logic app
- D. an Azure SQL database

Answer:

B

Explanation:

Infrastructure as a Service (IaaS) is a cloud computing model where a vendor provides users with access to computing resources such as servers, storage, and networking. The user is responsible for managing the operating system, applications, and data. An Azure virtual machine is a prime example of IaaS because it provides a complete, virtualized hardware environment. You choose the operating system and are responsible for all software installation, configuration, and maintenance on that virtual machine, giving you maximum control over the infrastructure.

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Why Incorrect Options are Wrong:

- A. an Azure web app: This is a Platform as a Service (PaaS) offering. Azure manages the underlying infrastructure and operating system, allowing you to focus solely on deploying your web application code.
- C. an Azure logic app: This is a serverless, Platform as a Service (PaaS) offering. It allows you to build automated workflows without managing any underlying infrastructure, servers, or runtimes.
- D. an Azure SQL database: This is a Platform as a Service (PaaS) offering. Microsoft manages the infrastructure and the SQL Server software; you are only responsible for managing the database and its data.

References:

1. Microsoft Learn. (2024). Describe cloud service types. In "AZ-900: Describe cloud concepts," Module 3. "With IaaS, you rent IT infrastructure-servers and virtual machines (VMs), storage, networks, and operating systems-from a cloud provider on a pay-as-you-go basis." and "Some common examples of IaaS are Azure Virtual Machines..." .
2. Microsoft Learn. (2024). What is Infrastructure as a Service (IaaS)?.. Azure Fundamentals documentation. "Virtual machines are the most common type of IaaS resource."
3. Microsoft Learn. (2024). App Service overview. Azure App Service documentation. "Azure App

Service is an HTTP-based service for hosting web applications... As a platform as a service (PaaS) offering, you don't have to worry about the infrastructure."

4. Microsoft Learn. (2024). What is Azure SQL Database?. Azure SQL Database documentation. "Azure SQL Database is a fully managed platform as a service (PaaS) database engine that handles most of the database management functions..."

5. Microsoft Learn. (2024). What is Azure Logic Apps?. Azure Logic Apps documentation. "Azure Logic Apps is a cloud-based platform for creating and running automated workflows... This platform is a managed service..."

Question: 164

This question requires that you evaluate the underlined text to determine if it is correct. You have an application that is comprised of an Azure web app that has a Service Level Agreement (SLA) of 99.95 percent and an Azure SQL database that has an SLA of 99.99 percent. The composite SLA for the application is the product of both SLAs, which equals 99.94 percent. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. the lowest SLA associated to the application, which is 99.95 percent
- C. the highest SLA associated to the application, which is 99.99 percent
- D. the difference between the two SLAs, which is 0.05 percent

Answer:

A

Explanation:

The statement is correct. When an application's availability depends on multiple services functioning together (a series dependency), the overall or "composite" Service Level Agreement (SLA) is calculated by multiplying the individual SLAs of each component. In this scenario, the application requires both the Azure web app and the Azure SQL database to be available. The calculation is the product of their individual probabilities of uptime: $99.95\% \times 99.99\% = 0.9995 \times 0.9999 = 0.99940005\%$, which is correctly rounded to 99.94%. This composite SLA is always lower than the lowest individual SLA.

Why Incorrect Options are Wrong:

- B. The composite SLA is always lower than the lowest individual SLA because the probability of two independent events occurring is less than the probability of either individual event.
- C. The overall availability of a system cannot be higher than its least available component. The system fails if any single component fails.
- D. Calculating the difference between SLAs is not a valid method for determining the composite availability of a multi-component application.

References:

1. Microsoft Learn. "Describe service level agreements (SLAs)." AZ-900: Describe core Azure concepts. In the section "Combine SLAs," it states, "When you combine SLAs across different service offerings, the resultant SLA is a composite SLA. ... The resulting composite SLA is 99.95 percent $99.9\% \times 99.99\% = 99.85\%$ percent." This document directly confirms that multiplying SLAs is the correct method for calculating a composite SLA.

Source: <https://learn.microsoft.com/en-us/training/modules/describe-core-azure-concepts/5-describe-service-level-agreements>

2. Microsoft Azure Documentation. "SLA summary for Azure services." This document provides the individual SLAs for Azure services, confirming the values used in the question are valid for specific tiers. For example, App Service has a 99.95% SLA, and Azure SQL Database (Business Critical/Premium tiers) has a 99.99% SLA.

Source: <https://azure.microsoft.com/en-us/support/legal/sla/summary/>

Question: 165

Which service provides serverless computing in Azure?

- A. Azure Virtual Machines
- B. Azure Container instances
- C. Azure Functions
- D. Azure storage account

Answer:

C

Explanation:

Azure Functions is a core serverless compute service in Azure. It is an event-driven platform where developers can execute small pieces of code, or "functions," in response to a variety of triggers without needing to provision or manage the underlying server infrastructure. Azure automatically handles the scaling and resource management based on demand, and users are billed only for the compute time they consume. This model is the essence of serverless computing, abstracting server management away from the developer.

Why Incorrect Options are Wrong:

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- A. Azure Virtual Machines is an Infrastructure as a Service (IaaS) offering that requires users to manage the virtual server, including its operating system and software.
- B. Azure Container Instances runs containers without server management, but it is a container service (PaaS), not the primary event-driven, function-based serverless compute platform.
- D. Azure storage account is a service for storing data. It does not provide compute capabilities, although it can trigger serverless functions.

References:

1. Microsoft Learn. (2023). Describe serverless computing. In "Describe Azure compute and networking services (AZ-900)". Section: "Serverless computing implementations", Paragraph 1. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-compute-networking-services/5-describe-serverless-computing>

This document explicitly states, "Azure has two implementations of serverless compute: Azure Functions... and Azure Logic Apps."

2. Microsoft Learn. (2023). An introduction to Azure Functions. Section: "What is Azure Functions?", Paragraph 1. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-functions/functions-overview>

This source defines the service: "Azure Functions is a serverless solution that allows you to write less code, maintain less infrastructure, and save on costs."

3. Microsoft Learn. (2023). Describe virtual machines. In "Describe Azure compute and networking services (AZ-900)". Section: "What are virtual machines?", Paragraph 1. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-compute-networking-services/2-describe-virtual-machines>

This page clarifies that Virtual Machines are an IaaS offering, which is distinct from serverless.

Question: 166

This question requires that you evaluate the Bold text to determine if it is correct. From Azure Cloud Shell, you can track your company's regulatory standards and regulations, such as ISO 27001. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. the Microsoft Cloud Partner Portal
- C. Compliance Manager
- D. the Trust Center

Answer:

C

Explanation:

The statement is incorrect. Azure Cloud Shell is a browser-based command-line interface for managing Azure resources. The correct tool for tracking an organization's compliance with regulatory standards and regulations is Microsoft Purview Compliance Manager. Compliance Manager helps you manage your organization's compliance requirements by providing pre-built assessments for common industry and regional standards, such as ISO 27001. It allows you to track your progress, manage improvement actions, and generate reports to demonstrate your compliance posture to auditors and regulators.

Why Incorrect Options are Wrong:

- A. No change is needed: Azure Cloud Shell is an interactive shell for managing Azure resources via command line; it is not a compliance management tool.
- B. the Microsoft Cloud Partner Portal: This portal is designed for Microsoft partners to manage their relationship with Microsoft and their marketplace offerings, not for tracking organizational compliance.
- D. the Trust Center: The Microsoft Trust Center is a public-facing website that provides information about Microsoft's security, privacy, and compliance practices, not a personalized tool for tracking your company's specific compliance status.

References:

1. Microsoft Learn. "Microsoft Purview Compliance Manager." Microsoft Docs. Accessed October 26, 2023. In the "Overview" section, it states, "Microsoft Purview Compliance Manager helps you manage your organization's compliance requirements with greater ease and convenience... Compliance Manager helps simplify compliance and reduce risk by providing... Pre-built

assessments for common industry and regional standards and regulations..."

2. Microsoft Learn. "Overview of Azure Cloud Shell." Microsoft Docs. Accessed October 26, 2023.

The first paragraph defines it as "an interactive, authenticated, browser-accessible terminal for managing Azure resources."

3. Microsoft Learn. "Welcome to the Microsoft Trust Center." Microsoft Docs. Accessed October 26, 2023. The "What is the Trust Center?" section describes it as a resource to "learn how

Microsoft helps you protect your data and manage compliance." It is an informational site, not a tracking tool.

Question: 167

Your company has an Azure subscription that contains the following unused resources: 20 user accounts in Azure Active Directory (Azure AD) Five groups in Azure AD 10 public IP addresses 10 network interfaces You need to reduce the Azure costs for the company. Solution: You remove the unused network interfaces. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The proposed solution does not meet the goal because Azure network interfaces (NICs) do not have a direct cost associated with them. While they are essential components for virtual machines, the NIC resource itself is free. Therefore, deleting unused network interfaces will not reduce the company's Azure costs. To effectively reduce costs, the company should remove the unused resources that do incur charges, such as the public IP addresses. Azure Active Directory users and groups within the Free tier also do not have a direct cost.

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Why Incorrect Options are Wrong:

A. Yes: This is incorrect because deleting network interfaces provides no cost savings, as the resource itself is free of charge.

References:

1. Azure Virtual Network Pricing: The official pricing page for Azure Virtual Network components explicitly states that there is no charge for the network interface itself.

Source: Microsoft Azure Documentation, "Virtual Network pricing".

Section: Under the "Network interface (NIC)" section, it states, "There is no charge for the network interface itself."

2. Azure IP Address Pricing: This documentation confirms that public IP addresses incur a cost, even when they are not associated with a running virtual machine.

Source: Microsoft Azure Documentation, "IP Addresses pricing".

Section: The pricing table shows hourly charges for both "Public IP addresses (dynamic)" and "Public IP addresses (static)," including charges for unassociated IPs.

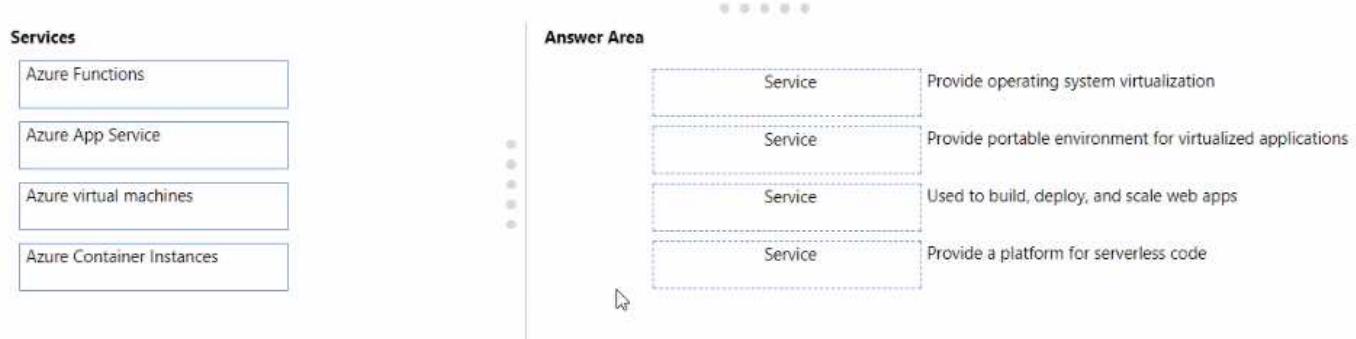
3. Azure Active Directory Pricing: This source details the features of the different Azure AD tiers. The Free tier, which is included with an Azure subscription, allows for the creation of users and groups at no cost.

Source: Microsoft Azure Documentation, "Azure Active Directory pricing".

Section: The "Free" column in the feature comparison table shows that directory objects (users, groups) are included without a per-user charge.

Question: 168

DRAG DROP Match the Azure service to the correct description. Instructions: To answer, drag the appropriate Azure service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all NOTE: Each correct match is worth one point.



Answer:

Azure virtual machines Provide operating system virtualization

Azure Container Instances Provide portable environment for virtualized applications

Azure App Service Used to build, deploy, and scale web apps

Azure Functions Provide a platform for serverless code

Explanation:

Azure Virtual Machines (VMs) are an Infrastructure as a Service (IaaS) offering that allows you to provision and manage virtualized servers in the cloud, giving you total control over the operating system.

Azure Container Instances (ACI) offers a way to run isolated Docker containers. Containers virtualize the operating system, packaging an application with its dependencies to create a portable environment that can run anywhere.

Azure App Service is a Platform as a Service (PaaS) specifically designed for hosting web applications, REST APIs, and mobile back ends, providing a fully managed platform for building, deploying, and scaling them.

Azure Functions is an event-driven, serverless compute platform that enables you to run small pieces of code (functions) without having to manage the underlying infrastructure.

References:

Azure virtual machines: Microsoft's official documentation states, "Virtual machines are an ideal choice when you need... Total control over the operating system (OS)."

Source: Microsoft Learn. "Choose an Azure compute service". Compute decision tree section.

Azure Container Instances: The Azure documentation on containers explains, "A container virtualizes the underlying OS and causes the containerized app to perceive that it has the OS..."

Containers are portable... you can deploy the same image in different environments."

Source: Microsoft Learn. "What is a container?". Containers section.

Azure App Service: Microsoft's product page clearly defines its purpose: "Azure App Service is a fully managed platform for building, deploying and scaling web apps."

Source: Microsoft Learn. "App Service overview". Introduction section.

Azure Functions: The official documentation describes Azure Functions as, "a serverless solution that allows you to write less code, maintain less infrastructure, and save on costs. Instead of worrying about deploying and maintaining servers, the cloud infrastructure provides all the up-to-date resources needed to keep your applications running."

Source: Microsoft Learn. "An introduction to Azure Functions". What is Functions? section.

Question: 169

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

Statements	Yes	No
An Azure service in private preview is released to all Azure customers.	<input type="radio"/>	<input checked="" type="radio"/>
An Azure service in public preview is released to all Azure customers.	<input checked="" type="radio"/>	<input type="radio"/>
An Azure service in general availability is released to a subset of Azure customers.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

An Azure service in private preview is released to all Azure customers. - No

An Azure service in public preview is released to all Azure customers. - Yes

An Azure service in general availability is released to a subset of Azure customers. - No

Explanation:

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Private Previews are available only to a specific, invited group of Azure customers for evaluation purposes. They are not open to the general public.

Public Previews are made available to all Azure customers, typically through the Azure portal. Any customer can choose to use and evaluate the service during this phase, although it's not yet recommended for production workloads and may not have a formal Service Level Agreement (SLA).

General Availability (GA) marks the final, production-ready release of a service. At this stage, the service is available to all Azure customers, is fully supported, and is backed by an SLA.

References:

Microsoft Azure Documentation: "Supplemental Terms of Use for Microsoft Azure Previews." This document outlines the nature of preview services. It implicitly distinguishes between private (invite-only) and public (available to all) previews by stating, "Previews may not be covered by customer support." Public previews are accessible by all customers, whereas private previews are not.

Microsoft Learn: "Access and enable Azure preview features." This module explains, "Some

previews, called private previews, are only available to specific Azure customers for initial testing... When a feature is ready for the broader audience to test, it is released as a public preview."

Microsoft Learn: "Describe the service lifecycle in Azure." This page defines the release phases, stating that General Availability (GA) is the stage where a feature is "released to all customers."

Question: 170

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

Statements	Yes	No
By creating additional resource groups in an Azure subscription, additional costs are incurred.	<input type="radio"/>	<input type="radio"/>
By copying several gigabits of data to Azure from an on-premises network over a VPN, additional data transfer costs are incurred.	<input type="radio"/>	<input type="radio"/>
By copying several GB of data from Azure to an on-premises network over a VPN, additional data transfer costs are incurred.	<input type="radio"/>	<input type="radio"/>

Answer:

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Statement 1: No

Statement 2: No

Statement 3: Yes

Explanation:

Creating additional resource groups: Azure Resource Groups are logical containers used to manage resources within a subscription. There is no cost associated with creating or maintaining the resource groups themselves. Costs are only incurred for the Azure resources, such as virtual machines or storage accounts, that are deployed within a resource group.

Copying data to Azure (Ingress): Data transfer into Azure data centers from an on-premises network (inbound data transfer or ingress) is free. This policy encourages users to migrate and store their data on the Azure platform. While the VPN Gateway service itself has an associated cost, the actual data transfer into Azure does not incur additional charges.

Copying data from Azure (Egress): Data transfer out of Azure data centers to an on-premises network (outbound data transfer or egress) is charged. While Azure provides a free monthly

allowance for outbound data (the first 100 GB per month across all services), transferring "several GB" will likely incur costs once this free tier is exceeded. Charges are calculated per gigabyte.

References:

Azure Resource Manager Documentation: In the "Terminology" section, it is stated, "The resource group stores metadata about the resources...There's no cost for resource groups."

Microsoft. (n.d.). Azure Resource Manager overview. Microsoft Docs. Retrieved from <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview>

Azure Pricing Details for Bandwidth: The official pricing page clearly lists inbound and outbound data transfer rates.

Microsoft. (n.d.). Bandwidth pricing details. Azure. Retrieved from

<https://azure.microsoft.com/en-us/pricing/details/bandwidth/>

Section: Data Transfer: Under the pricing table, "Inbound data transfers" are listed as "Free."

Section: Data Transfer: The table for "Outbound data transfers" specifies a price per GB, with the "First 100 GB / month" being free.

Azure VPN Gateway Pricing: This page details costs related to VPN Gateways, confirming that outbound data transfers are subject to standard rates.

Microsoft. (n.d.). VPN Gateway pricing. Azure. Retrieved from

<https://azure.microsoft.com/en-us/pricing/details/vpn-gateway/>

Section: FAQ: In response to "Are there any data transfer charges...", the documentation states, "Inbound data transfer from an on-premises VPN device to Azure VPN gateway is free. Outbound data transfer... will be charged at the standard data transfer rate." CertMage.com

Question: 171

This question requires that you evaluate the **BOLD** text to determine if it is correct. The Azure Standard support plan is the lowest cost option to receive 24x7 access to support engineers by phone. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. Developer
- C. Basic
- D. Professional Direct

Answer:

A

Explanation:

The Azure Standard support plan is the first paid tier that provides 24x7 access to technical support engineers via phone and email for high-severity cases (Severity A). The less expensive Developer plan only offers email support during business hours, and the free Basic plan does not include any technical support. The Professional Direct plan also provides 24x7 phone support but at a higher cost than the Standard plan. Therefore, the Standard plan is correctly identified as the lowest-cost option for this specific service level.

Why Incorrect Options are Wrong:

- B. Developer: The Developer plan does not offer 24x7 access or phone support; it is limited to email support during business hours.
- C. Basic: The Basic plan does not include access to technical support engineers. It only provides support for billing and subscription management issues.
- D. Professional Direct: While this plan includes 24x7 phone support, it is more expensive than the Standard plan and is not the lowest-cost option.

References:

1. Microsoft Azure Documentation, "Azure support plans". The official comparison table shows that "24x7 access to support engineers" via "Phone & email" begins with the Standard plan. The Developer plan is listed with "Email" support during "Business hours," and the Basic plan has no technical support listed.
Source: <https://azure.microsoft.com/en-us/support/plans/> (Refer to the "Technical support" section in the comparison table).
2. Microsoft Learn, "Compare Azure support plans", AZ-900. This learning module explicitly states

the features of each plan. It details that the Standard plan is the first tier to offer 24x7 support, distinguishing it from the Developer plan's business-hours-only support and the Basic plan's lack of technical support.

Source: <https://learn.microsoft.com/en-us/training/modules/describe-cost-management-service-level-agreements/5-describe-support-options> (Refer to the "Compare support plans" table).

Question: 172

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

Statements	Yes	No
A platform as a service (PaaS) solution that hosts web apps in Azure provides full control of the operating systems that host applications.	<input type="radio"/>	<input type="radio"/>
A Platform as a Service (PaaS) solution that hosts web apps in Azure can be provided with additional memory by changing the pricing tier.	<input type="radio"/>	<input type="radio"/>
A Platform as a Service (PaaS) solution that hosts web apps in Azure can be configured to automatically scale the number of instances based on demand.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

Yes

Explanation:

No: In the Platform as a Service (PaaS) model, the cloud provider (Microsoft) manages the underlying infrastructure, including networking, storage, servers, and the operating system. The consumer only manages their own applications and data. Full control over the operating system is a characteristic of Infrastructure as a Service (IaaS).

Yes: Azure App Service plans, which are the PaaS environment for web apps, are offered in different pricing tiers. Each tier provides a specific amount of compute resources like CPU and memory. Increasing memory is achieved by scaling up, which involves moving to a higher pricing tier.

Yes: Azure App Service has a built-in autoscale feature. This allows you to automatically change the number of running instances of your application based on performance metrics or a schedule. This process is known as scaling out.

References:

Microsoft Azure Documentation, "Shared responsibility in the cloud". This document outlines the division of responsibilities between the customer and Microsoft for IaaS, PaaS, and SaaS models. For PaaS, it explicitly states that the operating system is managed by Microsoft.

Microsoft Azure Documentation, "Scale up an app in Azure App Service". This guide details the process of changing the pricing tier of an App Service plan to increase resources. It states, "When you scale up, you get more CPU, memory, disk space, and extra features..."

Microsoft Azure Documentation, "Get started with Autoscale in Azure". This document provides an overview of the autoscale feature, which "allows you to have the right amount of resources running to handle the load on your app." It is a core feature for PaaS solutions like Azure App Service.

Question: 173

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. Your company plans to migrate all its data and resources to Azure. The company's migration plan states that only Platform as a Service (PaaS) solutions must be used in Azure. You need to deploy an Azure environment that meets the company migration plan. Solution: You create an Azure virtual machines, Azure SQL databases, and Azure Storage accounts. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

The proposed solution does not meet the goal because it includes Azure Virtual Machines, which are an Infrastructure as a Service (IaaS) offering. The company's migration plan explicitly states that only Platform as a Service (PaaS) solutions must be used. While Azure SQL Database and Azure Storage are considered PaaS offerings, the inclusion of an IaaS component (Azure Virtual Machines) violates this strict requirement. Therefore, the overall solution is non-compliant with the migration plan.

Why Incorrect Options are Wrong:

- A. Yes: This is incorrect. The solution is invalid because the requirement is to use only PaaS solutions, and Azure Virtual Machines are a core IaaS service, which violates the stated constraint.

References:

1. Microsoft Learn. (2023). What is Infrastructure as a service (IaaS)? In "Azure Fundamentals learning path". "The most common IaaS services are virtual machines... With IaaS, you rent IT infrastructure-servers and virtual machines (VMs), storage, networks, operating systems-from a cloud provider on a pay-as-you-go basis." This source confirms that Azure Virtual Machines are an IaaS service.
2. Microsoft Learn. (2023). What is Platform as a service (PaaS)? In "Azure Fundamentals learning path". This document lists examples of PaaS services, including "Azure SQL" and "Azure Storage," confirming their classification. However, it also defines PaaS as a model where the

cloud provider manages the underlying infrastructure, including the operating systems, which is not the case for Azure Virtual Machines.

3. Microsoft Learn. (2023). Compare IaaS, PaaS, and SaaS. In "Azure Fundamentals learning path". The shared responsibility model chart on this page clearly shows that for IaaS, the customer is responsible for the Operating System, Middleware, and Runtime. For PaaS, these are managed by the cloud provider. This distinction places Virtual Machines squarely in the IaaS category.

Question: 174

Your company plans to deploy several custom applications to Azure. The applications will provide invoicing services to the customers of the company. Each application will have several prerequisite applications and services installed. You need to recommend a cloud deployment solution for all the applications. What should you recommend?

- A. Software as a Service (SaaS)
- B. Platform as a Service (PaaS)
- C. Infrastructure as a Service (IaaS)

Answer:

C

Explanation:

The requirement to install "several prerequisite applications and services" for the custom applications is the key factor. This indicates a need for control over the operating system and the underlying software environment. Infrastructure as a Service (IaaS) provides this level of control. With IaaS, the company can provision virtual machines, choose the operating system, and then install any required software, dependencies, or services before deploying their custom invoicing applications. This model offers the maximum flexibility and control over the environment, which is necessary for applications with complex prerequisites.

Why Incorrect Options are Wrong:

- A. Software as a Service (SaaS): This model is for consuming ready-made software applications over the internet (e.g., Microsoft 365). It is not a platform for deploying your own custom-built applications.
- B. Platform as a Service (PaaS): In a PaaS model, the cloud provider manages the underlying infrastructure, including the operating system and middleware. This would prevent the company from installing its own specific prerequisite applications.

References:

1. Microsoft Learn, "What is Infrastructure as a service (IaaS)": Under the "Common IaaS business scenarios" section, it lists "Lift-and-shift migration," which involves moving existing applications to the cloud. The document states, "With IaaS, you're responsible for managing the operating systems, data, and applications." This confirms that IaaS provides the necessary control for installing prerequisites.
2. Microsoft Learn, "Shared responsibility in the cloud": The responsibility chart on this page clearly shows that in the IaaS model, the customer is responsible for the "Operating system," "Middleware," and "Application." In contrast, for PaaS, these are managed by the cloud provider,

making IaaS the only suitable choice for the scenario.

3. Microsoft Learn, AZ-900 Study Guide, "Describe cloud service types": This guide explains, "IaaS is the most flexible category of cloud services. It aims to give you complete control over the hardware that runs your application." This flexibility is essential for installing custom prerequisites.

Question: 175

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

Statements	Yes	No
An Azure subscription can be associated to multiple Azure Active Directory (Azure AD) tenants.	<input type="radio"/>	<input checked="" type="radio"/>
You can change the Azure Active Directory (Azure AD) tenant to which an Azure subscription is associated.	<input checked="" type="radio"/>	<input type="radio"/>
When an Azure subscription expires, the associated Azure Active Directory (Azure AD) tenant is deleted automatically.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

Yes

No

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Explanation:

An Azure subscription can only trust a single Azure Active Directory (Azure AD) tenant, now known as Microsoft Entra ID, at any given time. This single tenant is responsible for managing the identities (users, groups, and applications) that have access to the subscription's resources. While a subscription is locked to one tenant, administrators have the flexibility to change this association and transfer the subscription to a different tenant. This is a common administrative task when company structures change or resources are consolidated.

Finally, the Azure subscription and the Azure AD tenant are distinct entities. The tenant can be linked to multiple Azure subscriptions, as well as other Microsoft services like Microsoft 365. Therefore, the expiration or cancellation of a single subscription does not trigger the automatic deletion of the associated tenant.

References:

Microsoft Entra documentation, Associate or add an Azure subscription to your Microsoft Entra tenant. This document states, "Each Azure subscription is associated with a Microsoft Entra tenant. This tenant... is the subscription's identity provider... You can change the directory for a subscription...". This confirms that a subscription is associated with only one tenant but that this

association can be changed.

Microsoft Azure documentation, Subscriptions, licenses, accounts, and tenants for Microsoft's cloud offerings. Under the "Tenants" section, it clarifies the relationship: "A tenant represents an organization... Within a tenant, you can have zero, one, or multiple Azure subscriptions." This supports the concept that the tenant is a container for subscriptions and its existence is independent of a single subscription's lifecycle.

Microsoft Azure documentation, Cancel your Azure subscription. The documentation details the post-cancellation process, which includes states like 'Expired' and 'Disabled,' leading to the eventual deletion of data and resources within the subscription. It makes no mention of the associated Azure AD tenant being deleted, confirming their separate lifecycles.

Question: 176

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

Statements	Yes	No
An Azure resource can have multiple Delete locks.	<input type="radio"/>	<input type="radio"/>
An Azure resource inherits locks from its resource group.	<input type="radio"/>	<input type="radio"/>
If an Azure resource has a Read-only lock, you can add a Delete lock to the resource.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

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Explanation:

An Azure resource lock is itself a separate resource that is applied to a specific scope (resource, resource group, or subscription). Since each lock has a unique name, you can create and apply multiple locks of the same type, such as CanNotDelete (a delete lock), to the same resource. This allows for scenarios where different teams or automation processes might apply separate locks for different reasons (e.g., one for compliance, one for operational stability).

Lock inheritance is a fundamental characteristic of Azure Resource Manager. When you apply a lock at a parent scope, like a resource group, all child resources within that scope automatically inherit that lock. If multiple locks apply to a resource through inheritance and direct application, the most restrictive lock takes precedence.

A ReadOnly lock makes a resource, and its scope, read-only. This means it prevents all write operations, including creating, updating, or deleting resources within that scope. Adding a new lock is a write operation that requires the Microsoft.Authorization/locks/write permission. Because the ReadOnly lock effectively restricts all users to actions allowed by the Reader role (which lacks write permissions), you cannot add a new lock until the ReadOnly lock is first removed.

References:

Microsoft Learn: "Lock resources to prevent unexpected changes".

Regarding Inheritance (Statement 2): In the "Inheritance" section, it states, "When you apply a lock at a parent scope, all resources within that scope inherit the same lock."

Regarding ReadOnly Locks (Statement 3): The "Lock types" section explains, "Read-only means authorized users can read a resource, but they can't delete or update the resource. Applying this lock is similar to restricting all authorized users to the permissions granted by the Reader role."

The Reader role does not include the Microsoft.Authorization/locks/write permission needed to add a lock.

Regarding Multiple Locks (Statement 1): The structure of the lock as a resource, managed via the Microsoft.Authorization provider and identified by a unique name within its scope, allows for multiple instances. This is evident in the REST API and ARM template schemas for creating locks.

Question: 177

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

Statements	Yes	No
North America is represented by a single Azure region.	<input type="radio"/>	<input type="radio"/>
Every Azure region has multiple datacenters.	<input type="radio"/>	<input type="radio"/>
Data transfers between Azure services located in different Azure regions are always free.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

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Explanation:

North America is represented by a single Azure region: This is false. North America contains numerous Azure regions, such as East US, West US, Central US, Canada Central, and Canada East, to provide customers with performance, scalability, and redundancy.

Every Azure region has multiple datacenters: This is true. An Azure region is defined as a set of datacenters deployed within a latency-defined perimeter. This design ensures high availability and fault tolerance within the region. Even regions without Availability Zones are composed of multiple datacenters.

Data transfers between Azure services located in different Azure regions are always free: This is false. While data ingress to Azure datacenters is generally free, data transfers out of an Azure region (egress) to another region are subject to billing based on the amount of data transferred.

References:

Microsoft Azure Documentation, "Azure geographies". This resource provides an interactive map and list of all Azure regions, clearly showing multiple distinct regions within the geography of the Americas (including North America). Retrieved from

<https://azure.microsoft.com/en-us/explore/global-infrastructure/geographies/#overview>.

Microsoft Azure Documentation, "Regions and Availability Zones in Azure". Section: "Regions".

This document defines a region: "A region is a set of datacenters deployed within a latency-defined perimeter and connected through a dedicated regional low-latency network." The use of the plural "datacenters" is definitional. Retrieved from

<https://learn.microsoft.com/en-us/azure/availability-zones/az-overview>.

Microsoft Azure Documentation, "Bandwidth pricing details". This official pricing page details the costs associated with data movement. The section on "Data Transfer between Azure regions" explicitly lists per-GB charges for inter-region data transfers, confirming they are not free.

Retrieved from <https://azure.microsoft.com/en-us/pricing/details/bandwidth/>.

Question: 178

This question requires that you evaluate the underlined BOLD text to determine if it is correct. Azure Cosmos DB is an example of a platform as a service (PaaS) offering. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed
- B. infrastructure as a service (IaaS)
- C. serverless
- D. software as a service (SaaS)

Answer:

A

Explanation:

The statement is correct. Azure Cosmos DB is a fully managed NoSQL database service, which is a classic example of a Platform as a Service (PaaS) offering. In the PaaS model, the cloud provider (Microsoft) manages the underlying infrastructure, including servers, storage, networking, and the operating system, as well as the database platform software itself. The consumer is only responsible for their application and the data within the database, freeing them from the complexity of managing the underlying platform.

Why Incorrect Options are Wrong:

- B. infrastructure as a service (IaaS): This is incorrect because with IaaS, the consumer would be responsible for installing, configuring, and managing the database software on a virtual machine.
- C. serverless: While Azure Cosmos DB has a serverless pricing model, "serverless" describes an operational model, not the fundamental cloud service category (IaaS, PaaS, SaaS). PaaS is the correct service model classification.
- D. software as a service (SaaS): This is incorrect because Cosmos DB is a backend database platform for developers to build applications on, not a complete, ready-to-use software application for end-users.

References:

1. Microsoft Learn. (2023). Compare cloud services types - AZ-900. Microsoft Azure Fundamentals: Describe cloud concepts. In the section "Platform as a service (PaaS)," the documentation explicitly lists Azure Cosmos DB as an example: "Examples of PaaS services include Azure App Service, Azure SQL Database, and Azure Cosmos DB."
2. Microsoft Azure Documentation. (2023). Welcome to Azure Cosmos DB. In the introduction, it

is described as a "fully managed NoSQL and relational database for modern app development." The term "fully managed" is a key characteristic of PaaS, where the provider handles all platform-level administration.

Question: 179

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

Statements	Yes	No
Data that is copied to an Azure Storage account is maintained automatically in at least three copies.	<input type="radio"/>	<input type="radio"/>
All data that is copied to an Azure Storage account is backed up automatically to another Azure data center.	<input type="radio"/>	<input type="radio"/>
An Azure Storage account can contain up to 2 TB of data and up to one million files.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

No

Explanation:

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Yes: Azure Storage always maintains multiple copies of your data to ensure durability. The most basic level, Locally-Redundant Storage (LRS), creates three synchronous copies of data within a single physical data center. All other redundancy options create three or more copies.

No: This statement is false because the replication behavior depends on the chosen redundancy configuration. While options like Geo-Redundant Storage (GRS) do replicate data to a secondary region (another data center), the LRS option only stores copies within a single data center. Since not all configurations automatically replicate to another data center, the statement is incorrect.

No: The limits stated are incorrect. A standard Azure Storage account has a maximum capacity of 5 petabytes (PiB), which is vastly larger than 2 TB. There is no explicit limit on the number of files, but there are scalability targets for request rates and ingress/egress per account.

References:

Microsoft Azure Documentation. (2024). Azure Storage redundancy. Microsoft Learn.

"Locally-redundant storage (LRS) replicates your storage account three times within a single data center in the primary region. LRS provides at least 99.99999999% (11 nines) durability of objects over a given year."

Microsoft Azure Documentation. (2024). Scalability and performance targets for standard storage

accounts. Microsoft Learn. Under the "Scale targets for standard storage accounts" section, the documentation specifies that the "Capacity of a standard storage account" is "5 PiB".

Question: 180

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

Statements	Yes	No
If you have Azure resources deployed to every region, you can implement availability zones in all the regions.	<input type="radio"/>	<input type="radio"/>
Only virtual machines that run Windows Server can be created in availability zones.	<input type="radio"/>	<input type="radio"/>
Availability zones are used to replicate data and applications to multiple regions.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: No

Statement 2: No

Statement 3: No

Explanation:

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Not all Azure regions support Availability Zones. While the number of supported regions is growing, Availability Zones are a feature enabled by specific physical infrastructure which is not present in every region. Therefore, even if you have resources in all regions, you cannot implement Availability Zones in all of them.

Availability Zones support a wide range of Azure services, not just Windows Server virtual machines. This includes Linux virtual machines, Azure Kubernetes Service (AKS), Azure SQL Database, and many others. The feature is OS-agnostic for virtual machines.

Availability Zones provide high availability within a single Azure region. They are physically separate locations within one region. Replicating data and applications across multiple regions for disaster recovery is achieved through region pairs and geo-redundant services, not Availability Zones.

References:

Microsoft Azure Documentation, "Regions and Availability Zones in Azure."

Reference for Statement 1: Under the section "Regions," the documentation explicitly states, "Not all regions have support for availability zones."

Reference for Statement 3: In the section "Availability Zones," the definition clarifies their scope: "Availability zones are physically separate locations within an Azure region." This distinguishes

them from cross-region replication.

Microsoft Azure Documentation, "Azure services that support Availability Zones."

Reference for Statement 2: This page provides a comprehensive table of services that support Availability Zones. The list includes "Linux Virtual Machines," "Virtual Machine Scale Sets," "Azure Kubernetes Service (AKS)," "Azure SQL Database," and many others, directly refuting the claim that only Windows Server VMs are supported.

Question: 181

This question requires that you evaluate the underlined text to determine if it is correct. Azure Databricks is an Apache Spark-based analytics service. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. Azure Data Factory
- C. Azure DevOps
- D. Azure HDInsight

Answer:

A

Explanation:

The statement is correct. Azure Databricks is a first-party Microsoft Azure service that is fundamentally an analytics platform built upon and optimized for Apache Spark. It provides a collaborative environment with a unified interface for data engineers, data scientists, and machine learning engineers to work with big data and AI workloads. The service is a joint effort between Microsoft and Databricks, the company founded by the original creators of Apache Spark, ensuring a deeply integrated and high-performance Spark experience on Azure.

Why Incorrect Options are Wrong:

Azure Data Factory: This is a cloud-based data integration service used to create, schedule, and manage data pipelines (ETL/ELT workflows), not a Spark-based analytics platform itself.

Azure DevOps: This is a suite of services for managing the software development lifecycle, including planning, development, and deployment, and is unrelated to data analytics.

Azure HDInsight: This is a managed service that supports various open-source analytics frameworks, including Apache Spark, but it is not exclusively a "Spark-based" service like Azure Databricks is.

References:

1. Microsoft Learn. "What is Azure Databricks?". Microsoft Docs. Accessed May 20, 2024. In the "Overview" section, it states, "Azure Databricks is a data analytics platform optimized for the Microsoft Azure cloud services platform. ... Azure Databricks is built on Apache Spark."
2. Microsoft Learn. "What is Azure HDInsight?". Microsoft Docs. Accessed May 20, 2024. The documentation describes HDInsight as a service that allows you to "use open-source frameworks such as Apache Spark, Apache Hadoop, Apache Kafka, Apache HBase, Apache Storm..." This shows it supports Spark among other frameworks, making it less specific than Databricks.

3. Microsoft Learn. "What is Azure Data Factory?". Microsoft Docs. Accessed May 20, 2024. The "Overview" section defines it as "a fully managed, serverless data integration service."
4. Microsoft Learn. "What is Azure DevOps?". Microsoft Docs. Accessed May 20, 2024. The documentation states, "Azure DevOps provides developer services to support teams to plan work, collaborate on code development, and build and deploy applications."

Question: 182

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

Statements	Yes	No
Azure Monitor can monitor the performance of on-premises computers.	<input type="radio"/>	<input type="radio"/>
Azure Monitor can send alerts to Azure Active Directory security groups.	<input type="radio"/>	<input type="radio"/>
Azure Monitor can trigger alerts based on data in an Azure Log Analytics workspace.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

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Explanation:

On-premises monitoring: Azure Monitor can indeed monitor on-premises computers. This is accomplished by installing the Azure Monitor Agent (or the legacy Log Analytics agent) on the on-premises machines. The agent collects performance data and logs, sending them to an Azure Log Analytics workspace for analysis and monitoring, effectively extending Azure's monitoring capabilities to hybrid environments.

Alerts to Azure AD security groups: When an Azure Monitor alert is triggered, it uses an Action Group to define notifications. Action Groups can be configured to send notifications to various recipients, including email addresses of Azure Active Directory (Azure AD) users, distribution groups, and mail-enabled security groups.

Alerts from Log Analytics: This is a core function of Azure Monitor. Log alert rules can be created to automatically run a Kusto Query Language (KQL) query against data in a Log Analytics workspace at regular intervals. If the results of the query match specified criteria (e.g., a certain number of error events are found), an alert is triggered.

References:

Microsoft Corporation. (2024). Azure Monitor agent overview. Microsoft Docs. Retrieved September 5, 2025.

Reference: In the "Primary scenarios" section, it explicitly states, "Collect performance data from Windows and Linux operating systems... The agent supports servers running in Azure, other clouds, and on-premises."

Microsoft Corporation. (2024). Create and manage action groups in the Azure portal. Microsoft Docs. Retrieved September 5, 2025.

Reference: Under the "Configure notifications" section, the documentation lists "Email/SMS message/Push/Voice" as a notification type, and for the email configuration, it details that you can send notifications to an "Azure AD user, group, or application."

Microsoft Corporation. (2023). Log alerts in Azure Monitor. Microsoft Docs. Retrieved September 5, 2025.

Reference: The introductory section states, "A log alert rule runs a Log Analytics query at regular intervals. If the results of the query match the criteria that you define, an alert record is created."

Question: 183

Which Azure service provides a set of version control tools to manage code?

- A. Azure Repos
- B. Azure DevTest Labs
- C. Azure Storage
- D. Azure Cosmos DB

Answer:

A

Explanation:

Azure Repos is a service within the Azure DevOps suite specifically designed to provide version control tools for managing source code. It supports two popular version control systems: Git, a distributed system, and Team Foundation Version Control (TFVC), a centralized system. These tools allow development teams to track revisions, manage branches, and collaborate on code development through features like pull requests and code reviews. Azure Repos is the dedicated Azure service for source code management.

Why Incorrect Options are Wrong:

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- B. Azure DevTest Labs is a service for creating and managing development and test environments, not for versioning source code itself.
- C. Azure Storage is a foundational service for storing data like blobs, files, and disks; it does not offer integrated version control tools for code.
- D. Azure Cosmos DB is a globally distributed, multi-model NoSQL database service designed for application data, not for managing source code repositories.

References:

1. Microsoft Learn. (2023). Describe Azure DevOps services. In "AZ-900: Describe Azure identity, access, and security". "Azure Repos provides Git repositories or Team Foundation Version Control (TFVC) for source control of your code."
2. Microsoft Learn. (2023). What is Azure Repos?. Azure DevOps Documentation. "Azure Repos is a set of version control tools that you can use to manage your code."
3. Microsoft Learn. (2023). Describe Azure DevTest Labs. In "AZ-900: Describe Azure management and governance". "Azure DevTest Labs is a service that helps developers and testers quickly create environments in Azure..."
4. Microsoft Learn. (2023). Describe Azure database services. In "AZ-900: Describe Azure compute and networking services". "Azure Cosmos DB is a globally distributed, multi-model database service."

Question: 184

This question requires that you evaluate the underlined BOLD text to determine if it is correct. Azure Site Recovery provides fault tolerance for virtual machines. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. **disaster recovery**
- C. elasticity
- D. high availability

Answer:

B

Explanation:

Azure Site Recovery is a native disaster recovery as a service (DRaaS). Its primary function is to orchestrate the replication of virtual machines and physical servers to a secondary location, such as another Azure region. In the event of a primary site outage, you can fail over to the secondary location to resume operations. This process of recovering from a major outage by failing over to a secondary site is the definition of disaster recovery, not fault tolerance. Fault tolerance implies a system can withstand component failures with zero downtime, which is not what Site Recovery provides.

Why Incorrect Options are Wrong:

- A. No change is needed: This is incorrect because "fault tolerance" implies instantaneous, seamless failover with no service interruption, which is a different capability than what Azure Site Recovery offers.
- C. elasticity: This is incorrect. Elasticity refers to the ability of a system to automatically scale its resources up or down to meet fluctuating demand, which is unrelated to business continuity.
- D. high availability: This is incorrect. While related, high availability typically refers to solutions that prevent downtime from localized failures within a single datacenter or region (e.g., using Availability Zones). Disaster recovery, which is ASR's function, is about recovering from a region-wide failure.

References:

1. Microsoft Learn, "Azure Site Recovery overview": "Azure Site Recovery contributes to your business continuity and disaster recovery (BCDR) strategy by orchestrating replication of on-premises physical servers and virtual machines to Azure, or between Azure regions." This document explicitly identifies Site Recovery as a disaster recovery tool.

Source: Microsoft Learn, Module: "Describe Azure management and governance", Unit: "Describe features and tools in Azure for governance and compliance".

2. Microsoft Learn, "High availability and disaster recovery for Azure applications": This document distinguishes between the concepts. It states, "Disaster recovery (DR) is the ability to recover from rare but major incidents... Azure Site Recovery is a service that provides DR by replicating VMs to another Azure region." It places High Availability as a separate concept focused on resilience within a region.

Source: Microsoft Azure Well-Architected Framework, "Reliability", Section: "Design for high availability".

3. Microsoft Learn, "Describe fault tolerance and disaster recovery": This learning module for AZ-900 clarifies the distinction. "Fault tolerance is a concept that refers to a system's ability to remain operational even if some of its components fail... Disaster recovery is the ability to recover from a catastrophic failure... Azure Site Recovery is a disaster recovery service."

Source: Microsoft Learn, Course AZ-900T00: "Microsoft Azure Fundamentals", Module: "Describe core Azure architectural components", Unit: "Describe fault tolerance and disaster recovery".

Question: 185

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

Statements	Yes	No
Azure Advisor can generate a list of Azure virtual machines that are protected by Azure Backup.	<input type="radio"/>	<input type="radio"/>
If you implement the security recommendations provided by Azure Advisor, your company's secure score will decrease.	<input type="radio"/>	<input type="radio"/>
To maintain Microsoft support, you must implement the security recommendations provided by Azure Advisor within a period of 30 days.	<input type="radio"/>	<input type="radio"/>

Answer:

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No

No

No

Explanation:

Azure Advisor's role is to provide recommendations for improvement. In the context of backups, it identifies virtual machines that are not protected by Azure Backup and recommends enabling it. It does not generate lists of resources that are already correctly configured (i.e., protected). That function is typically found in Azure Backup Center or a Recovery Services vault.

Azure Advisor's security recommendations are integrated with and powered by Microsoft Defender for Cloud. Implementing these recommendations improves your security posture. The secure score is a numerical representation of this posture; therefore, resolving security issues will increase your secure score, not decrease it.

The recommendations provided by Azure Advisor are advisory and intended to help you optimize your Azure deployments. They are not mandatory. There is no requirement to implement them

within any timeframe to maintain your Microsoft support plan. Your support entitlement is based on your purchased support plan, not on your adherence to Advisor recommendations.

References:

Azure Advisor Backup Recommendation:

Microsoft Corporation. (2024). Azure Advisor for reliability. Microsoft Docs. In the section "Enable backup on your virtual machines to protect against accidental data deletion or corruption," the documentation states, "Advisor identifies virtual machines where backup is not enabled and recommends you enable backup." This confirms it identifies unprotected VMs, not protected ones.

Azure Advisor Security Recommendations and Secure Score:

Microsoft Corporation. (2024). Azure Advisor for security. Microsoft Docs. The document states, "Advisor security recommendations are powered by Microsoft Defender for Cloud." It also explains that "Defender for Cloud helps you prevent, detect, and respond to threats... It helps you improve your security posture and increase your secure score." This directly links implementing recommendations to an increase in the secure score.

Question: 186

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

Statements	Yes	No
Azure Firewall will encrypt all the network traffic sent from Azure to the Internet.	<input type="radio"/>	<input type="radio"/>
A network security group (NSG) will encrypt all the network traffic sent from Azure to the Internet.	<input type="radio"/>	<input type="radio"/>
Azure virtual machines that run Windows Server 2016 can encrypt the network traffic sent from the virtual machines to a host on the Internet.	<input type="radio"/>	<input type="radio"/>

Answer:

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No

No

Yes

Explanation:

Azure Firewall: The primary function of Azure Firewall is to act as a stateful firewall, filtering and inspecting network traffic based on configured rules. While it includes a TLS Inspection feature to decrypt, inspect, and re-encrypt already encrypted traffic, it does not inherently encrypt unencrypted traffic. Its role is security policy enforcement, not encryption as a service.

Network Security Group (NSG): NSGs are used to filter network traffic at the network and transport layers (Layers 3 and 4). They operate by allowing or denying traffic based on a 5-tuple (source/destination IP, source/destination port, and protocol). NSGs do not have any capability to perform encryption or decryption of network packets.

Azure Virtual Machines: An Azure virtual machine running Windows Server 2016 is a full operating system with a complete networking stack. It can encrypt its outbound traffic using

various methods, such as application-level encryption like Transport Layer Security (TLS/SSL) for HTTPS traffic, or network-level encryption using IPsec to create a secure VPN tunnel to an internet host. The capability is inherent to the operating system.

References:

Azure Firewall:

Microsoft Corporation. (2024). What is Azure Firewall? Microsoft Azure Documentation. Retrieved September 5, 2025. "Azure Firewall is a cloud-native and intelligent network firewall security service... It provides both east-west and north-south traffic inspection." (Note: The documentation describes its features as filtering and threat intelligence, not encryption of unencrypted traffic.)

Microsoft Corporation. (2024). Azure Firewall Premium features. Microsoft Azure Documentation. Section: "TLS inspection". "Azure Firewall Premium decrypts outbound and east-west TLS connections, performs the required security inspections... and then encrypts the traffic and sends it to the destination." (Note: This describes re-encryption after decryption, not the encryption of plaintext traffic.)

Network Security Groups (NSGs):

Microsoft Corporation. (2024). Network security groups. Microsoft Azure Documentation. "A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources... For each rule, you can specify source and destination, port, and protocol." (Note: The entire document describes filtering capabilities without any mention of encryption.)

Windows Server 2016 Encryption Capabilities:

Microsoft Corporation. (2023). IPsec and the IKE protocol. Microsoft Windows Server Documentation. "Internet Protocol security (IPsec) is a set of security protocols used to transfer IP packets confidentially across the Internet." (Note: This documents the native capability of the OS to perform network-layer encryption.)

Microsoft Corporation. (2021). Transport Layer Security (TLS) registry settings. Microsoft Windows Server Documentation. This document outlines the TLS/SSL Schannel Security Support Provider (SSP) built into Windows Server operating systems, which enables application-level encryption for protocols like HTTPS.

Question: 187

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

Statements	Yes	No
You can create Group Policies in Azure Active Directory (Azure AD).	<input type="radio"/>	<input type="radio"/>
You can join Windows 10 devices to Azure Active Directory (Azure AD).	<input type="radio"/>	<input type="radio"/>
You can join Android devices to Azure Active Directory (Azure AD).	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

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Explanation:

Statement 1: No. Group Policy Objects (GPOs) are a feature of on-premises Windows Server Active Directory Domain Services (AD DS). Azure AD does not use GPOs. Instead, device management and policy enforcement for cloud-managed devices are handled through Mobile Device Management (MDM) solutions like Microsoft Intune, which applies configuration profiles and policies.

Statement 2: Yes. Windows 10 and Windows 11 devices can be directly joined to Azure AD. This is known as "Azure AD join." It allows users to sign in to their devices using their Azure AD organizational credentials and enables features like single sign-on (SSO) to cloud applications and enforcement of security policies like Conditional Access.

Statement 3: No. The term "join" refers to a specific integration level available only for Windows devices. Android and iOS devices cannot be "Azure AD joined." Instead, they can be "Azure AD registered," which is a lighter form of integration that enables SSO to certain applications and is a prerequisite for enrollment into MDM solutions like Microsoft Intune for more comprehensive policy management.

References:

Azure Active Directory Documentation on Device Management:

"What is an Azure AD joined device?" clearly states, "Azure AD join allows you to join devices directly to Azure AD without the need to join to on-premises Active Directory... Azure AD join only applies to Windows devices." This supports the answers for the second and third statements.

"Azure AD registered devices" explains the process for non-Windows devices: "Users can register their personal devices with Azure AD... Supported operating systems include Windows 10 and newer, iOS, Android, and macOS." This highlights the distinction between joining and registering.

Microsoft Intune Documentation:

"Compare cloud-based group policy with on-premises GPOs" explicitly states, "Cloud native device management solutions, like Microsoft Intune, use policies to configure settings and features on devices... These policies are similar to on-premises GPO, but aren't the same." This supports the answer for the first statement.

Question: 188

This question requires that you evaluate the underlined text to determine if it is correct. The Microsoft Online Services Privacy Statement explains what data Microsoft processes, how Microsoft processes the data, and the purpose of processing the data. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. Microsoft Online Services Terms
- C. Microsoft Online Service Level Agreement
- D. Online Subscription Agreement for Microsoft Azure

Answer:

A

Explanation:

The statement is correct as written. The Microsoft Privacy Statement is the official document that details the personal data Microsoft collects, how it is used, and the purposes for which it is processed. This document provides transparency to customers regarding Microsoft's data handling practices across its various products and services, including its online services. It is a key component of Microsoft's commitment to trust and privacy.

Why Incorrect Options are Wrong:

- B. Microsoft Online Services Terms: This document defines the legal rights and obligations for customers and Microsoft related to the use of Microsoft's commercial online services.
- C. Microsoft Online Service Level Agreement: This document describes Microsoft's commitments for uptime and connectivity for its online services and provides for service credits if those commitments are not met.
- D. Online Subscription Agreement for Microsoft Azure: This is the legal agreement that governs the use of an Azure subscription, covering terms of use, payment obligations, and subscription details.

References:

1. Microsoft Privacy Statement. (2024). Microsoft. Retrieved from <https://privacy.microsoft.com/en-us/privacystatement>. In the "Introduction" section, the first paragraph states, "This privacy statement explains the personal data Microsoft processes, how Microsoft processes it, and for what purposes."
2. Microsoft Learn. (2024). Describe the Microsoft Privacy Statement. In "AZ-900: Describe core Azure concepts." Microsoft. Retrieved from <https://learn.microsoft.com/en-us/training/modules/des>

cribe-features-tools-azure-for-governance-compliance/4-describe-privacy-statement. The module states, "The Microsoft Privacy Statement explains what personal data Microsoft collects, how Microsoft uses it, and for what purposes."

3. Microsoft Trust Center. (2024). Our commitment to privacy and data protection. Microsoft. Retrieved from <https://www.microsoft.com/en-us/trust-center/privacy>. This resource outlines Microsoft's privacy principles and links directly to the Privacy Statement as the source for details on data processing.

Question: 189

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

Statements	Yes	No
Azure Security Center can monitor Azure resources and on-premises resources.	<input type="radio"/>	<input type="radio"/>
All Azure Security Center features are free.	<input type="radio"/>	<input type="radio"/>
From Azure Security Center, you can download a Regulatory Compliance report.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

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Yes

Explanation:

Azure Security Center (now Microsoft Defender for Cloud) provides unified security management across hybrid cloud workloads. It achieves this by extending monitoring to on-premises and other cloud (e.g., AWS, GCP) resources, typically by using Azure Arc-enabled servers and the Log Analytics agent. This allows for a consistent view of security posture and threat protection across all environments.

Microsoft Defender for Cloud is offered in two modes. The foundational Cloud Security Posture Management (CSPM) is a free service available to all Azure subscriptions. However, advanced features like threat protection for servers, databases, and other services, along with vulnerability assessments and regulatory compliance dashboards, require enabling the paid enhanced security plans (formerly known as Azure Defender).

A key feature of the enhanced security plans in Microsoft Defender for Cloud is the regulatory compliance dashboard. This tool continuously assesses the hybrid cloud environment against controls from various industry standards and regulations. Users can generate and download summary reports in PDF and CSV formats to provide evidence of compliance to auditors and

stakeholders.

References:

Statement 1 (Monitoring on-premises):

Microsoft Corporation. (n.d.). Connect your non-Azure machines to Microsoft Defender for Cloud. Microsoft Learn. Retrieved September 5, 2025, from <https://learn.microsoft.com/en-us/azure/defender-for-cloud/quickstart-onboard-machines?pivots=azure-arc>. In the "Prerequisites" and "Add non-Azure servers" sections, the documentation explicitly details the use of Azure Arc to onboard on-premises and other cloud machines for monitoring.

Statement 2 (Pricing Tiers):

Microsoft Corporation. (n.d.). Overview of Microsoft Defender for Cloud. Microsoft Learn. Retrieved September 5, 2025, from <https://learn.microsoft.com/en-us/azure/defender-for-cloud/defender-for-cloud-introduction>. The section "Pricing" clearly states, "Defender for Cloud is offered in two modes: without enhanced security features (Free) and with enhanced security features (Paid)."

Statement 3 (Compliance Reports):

Microsoft Corporation. (n.d.). Tutorial: Improve your regulatory compliance. Microsoft Learn. Retrieved September 5, 2025, from <https://learn.microsoft.com/en-us/azure/defender-for-cloud/regulatory-compliance-dashboard>. The section "Generate compliance status reports and certificates" provides instructions: "You can download a PDF report that summarizes your compliance status for a particular standard... You can also download CSV reports."

Question: 190

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

Statements	Yes	No
Storing 1 TB of data in Azure Blob storage will always cost the same, regardless of the Azure region in which the data is located.	<input type="radio"/>	<input type="radio"/>
When you use a general-purpose v2 Azure Storage account, you are only charged for the amount of data that is stored. All read and write operations are free.	<input type="radio"/>	<input type="radio"/>
Transferring data between Azure Storage accounts in different Azure regions is free.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

No

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Explanation:

Azure service pricing, including Blob Storage, varies by region. Factors such as local infrastructure, energy costs, and taxes cause prices to differ. Therefore, storing 1 TB of data in the East US region will have a different cost than in the Japan East region.

For general-purpose v2 storage accounts, pricing is multifaceted. While you are charged for the volume of data stored (data at rest), you are also billed for data access operations (e.g., reads, writes, lists) and data transfer (e.g., data egress out of an Azure region). Operations are not free.

Data transfers out of an Azure datacenter (egress) are typically charged. When moving data between storage accounts located in different regions, this is considered an inter-region data transfer, which incurs a specific cost per gigabyte transferred from the source region.

References:

Microsoft Azure Documentation, Blob Storage Pricing: The official pricing page demonstrates that costs for data storage vary based on the selected Azure region. The page also explicitly lists prices for "Operations and data transfer," confirming charges for read/write operations.

Source: Microsoft Corporation. (2024). Blob Storage Pricing. Azure. Retrieved from <https://azure.microsoft.com/en-us/pricing/details/storage/blobs/>

Specific Sections: "Data storage prices" (shows regional variance) and "Operations and data transfer prices."

Microsoft Azure Documentation, Bandwidth Pricing Details: This document outlines the costs associated with data movement. It includes a dedicated section for "Data Transfer between Azure regions," which specifies the per-GB cost for transferring data out of a source region to another region.

Source: Microsoft Corporation. (2024). Bandwidth Pricing Details. Azure. Retrieved from <https://azure.microsoft.com/en-us/pricing/details/bandwidth/>

Specific Section: "Data Transfer between Azure regions."

Question: 191

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

Statements	Yes	No
Most Azure services are introduced in private preview before being introduced in public preview, and then in general availability.	<input type="radio"/>	<input type="radio"/>
Azure services in public preview can be managed only by using the Azure CLI.	<input type="radio"/>	<input type="radio"/>
The cost of an Azure service in private preview decreases when the service becomes generally available.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

No

Explanation:

The typical lifecycle for a new Azure service is to first release it to a limited audience in private preview, then to all Azure customers for feedback as a public preview, and finally release it as a fully supported service in general availability (GA). This phased approach allows Microsoft to gather feedback and ensure stability before the full launch.

Azure services in public preview are accessible through multiple management interfaces, not just the Azure CLI. These typically include the Azure Portal, Azure PowerShell, and Azure SDKs. While some specific preview features might initially be limited to a programmatic interface like the CLI, it is not the exclusive management tool for all public preview services.

The cost of an Azure service generally increases when it moves from preview to general availability. Services in private or public preview are often offered free of charge or at a discounted "preview" rate to encourage adoption and testing. Once the service becomes generally available, it is fully supported with a Service Level Agreement (SLA), and standard production pricing applies, which is typically higher than any preview pricing.

References:

Microsoft Azure Documentation: "Get started with preview features in Azure". This document outlines the release process: "When a new feature is being developed, we often start with a private preview program... After a successful private preview, we'll release the feature in a public preview." This confirms the standard progression from private to public preview.

Microsoft Azure Documentation: "Supplemental Terms of Use for Microsoft Azure Previews". This legal document clarifies the nature of preview services. Section 1c states, "PREVIEWS may not be supported in all regions or be available through all user interfaces (e.g., Azure Portal, CLI, PowerShell)." This implies that management is possible through various interfaces and is not restricted to the CLI alone.

Microsoft Azure Documentation: "Supplemental Terms of Use for Microsoft Azure Previews". Section 1d, on "Fees", notes that "PREVIEWS may be provided at a reduced or no charge." It further states that pricing is subject to change. Standard industry practice and Azure's pricing model show that services transition from a reduced/no-charge preview state to a standard, higher-cost pricing model at General Availability to reflect full support and SLAs.

Question: 192

Which statement accurately describes the Modern Lifecycle Policy for Azure services?

- A. Microsoft provides mainstream support for a service for five years.
- B. Microsoft provides a minimum of 12 months' notice before ending support for a service.
- C. After a service is made generally available, Microsoft provides support for the service for a minimum of four years.
- D. When a service is retired, you can purchase extended support for the service for up to five years.

Answer:

B

Explanation:

The Modern Lifecycle Policy governs products and services that are continuously serviced and updated, such as Microsoft Azure. A core tenet of this policy is that Microsoft will provide ongoing support as long as customers stay current with the service's requirements. To ensure customers have adequate time to plan for changes, Microsoft commits to providing a minimum of 12 months' notification before retiring a service or ending support, allowing customers to migrate to newer offerings or alternative solutions without disruption. This policy provides a predictable timeline for service retirements.

Why Incorrect Options are Wrong:

- A. The concept of a fixed five-year mainstream support period is characteristic of the Fixed Lifecycle Policy, not the Modern Lifecycle Policy.
- C. A minimum support duration of four years is not a specified term of the Modern Lifecycle Policy, which focuses on continuous support and notification periods.
- D. Purchasing extended support is a feature available under the Fixed Lifecycle Policy for certain products, not the Modern Lifecycle Policy for Azure services.

References:

1. Microsoft Lifecycle Documentation. "Modern Lifecycle Policy." Microsoft Corp. Accessed October 26, 2023. Under the "Policy requirements" section, it states, "For products and services governed by the Modern Lifecycle Policy, Microsoft will provide a minimum of 12 months' notification prior to ending support..."
2. Microsoft Azure Documentation. "Azure service retirement." Microsoft Learn. Accessed October 26, 2023. The overview section states, "We provide a minimum of 12 months' notice before retiring a service..." This document directly applies the Modern Lifecycle Policy's notification rule to Azure services.

3. Microsoft Lifecycle Documentation. "Fixed Lifecycle Policy." Microsoft Corp. Accessed October 26, 2023. This document describes the policy with defined support phases (Mainstream and Extended), which aligns with the concepts mentioned in the incorrect options A and D.

Question: 193

HOTSPOT You need to request that Microsoft increase a subscription quota limit for your company. Which blade should you use from the Azure portal? To answer, select the appropriate blade in the answer area.

Microsoft Azure



New



All services



FAVORITES



Dashboard



All resources



Resource groups



App Services



Function Apps



SQL databases



Azure Cosmos DB



Virtual machines



Load balancers

Answer:

Help + support

Explanation:

Subscription-level quota increases are submitted as a free support request. In the Azure portal you open the Help + support blade and choose "New support request Quota" to ask Microsoft to raise the limit for the subscription. No other portal blade (e.g., Resource groups, Subscriptions) provides the quota-increase workflow.

References:

1. Microsoft Docs - "Azure subscription and service limits, quotas, and constraints", Section "Request a standard quota increase": "In the Azure portal, select Help + support New support request... choose Quota" (<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/azure-subscription-service-limits>)
2. Microsoft Docs - "Increase virtual machine vCPU quotas" Step 1: "Sign in to the portal, select Help + support Create support request... select Quota"
(<https://learn.microsoft.com/en-us/azure/virtual-machines/quotas>)

Question: 194

This question requires that you evaluate the underlined BOLD text to determine if it is correct. You can use Advisor recommendations in Azure to send email alerts when the cost of the current billing period for an Azure subscription exceeds a specified limit. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. Access control (IAM)
- C. Budget alerts
- D. Compliance

Answer:

C

Explanation:

The statement is incorrect. Azure Advisor provides personalized recommendations to optimize Azure resources across categories like cost, security, and performance. However, it does not send alerts based on spending thresholds. The correct service for this function is Azure Cost Management, which includes the ability to create budget alerts. These alerts are specifically designed to monitor spending against a defined budget and automatically notify stakeholders via email when consumption reaches or exceeds a configured threshold, helping to proactively manage costs.

Why Incorrect Options are Wrong:

- A. No change is needed: This is incorrect because Azure Advisor's function is to provide optimization recommendations, not to send alerts based on spending against a budget.
- B. Access control (IAM): This is incorrect. Azure Identity and Access Management (IAM), specifically Role-Based Access Control (RBAC), is used to manage user permissions to Azure resources, not for financial monitoring or alerting.
- D. Compliance: This is incorrect. Compliance in Azure relates to meeting regulatory and organizational standards, managed through services like Azure Policy and Microsoft Purview, which do not handle cost-based alerting.

References:

1. Microsoft Learn. "Tutorial: Create and manage Azure budgets." Azure Cost Management documentation. Under the "Create a budget in the Azure portal" section, it states, "Budgets help you plan and drive organizational accountability... you can use them to proactively inform others about their spending... When the budget thresholds you've created are met, alerts are triggered."
2. Microsoft Learn. "Introduction to Azure Advisor." Azure Advisor documentation. The overview section describes Advisor as a "personalized cloud consultant that helps you follow best practices to optimize your Azure deployments." It lists its recommendation categories as Reliability, Security, Performance, Operational Excellence, and Cost, confirming its role is advisory, not alerting on budget thresholds.
3. Microsoft Learn. "What is Azure role-based access control (Azure RBAC)?" Azure Active Directory documentation. The "What is Azure RBAC?" section clearly defines its purpose: "Azure role-based access control (Azure RBAC) helps you manage who has access to Azure resources, what they can do with those resources, and what areas they have access to." This confirms it is unrelated to cost management alerts.

Question: 195

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

Statements	Yes	No
From the Azure portal, you can distinguish between services that are generally available and services that are in public preview.	<input type="radio"/>	<input type="radio"/>
After an Azure service becomes generally available, the service is no longer updated with new features.	<input type="radio"/>	<input type="radio"/>
When you create Azure resources for a service in public preview, you must recreate the resources once the service becomes generally available.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

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No

Explanation:

Yes: The Azure portal explicitly identifies services in a preview state. These services are typically marked with a "(preview)" tag next to their name, allowing users to easily differentiate them from generally available (GA) services. This distinction is crucial as preview services may have different terms of service, support levels, and pricing.

No: General Availability (GA) signifies that a service is stable, production-ready, and fully supported, often with a Service Level Agreement (SLA). It does not imply that development ceases. On the contrary, GA services are continuously updated with new features, performance improvements, and security enhancements throughout their lifecycle.

No: For most Azure services, resources created during a public preview do not need to be recreated when the service transitions to general availability. The typical path is a seamless upgrade. While Microsoft reserves the right to introduce breaking changes, it is not the standard procedure, and customers are notified if any specific actions are required for the transition.

References:

Microsoft Azure Documentation, "Azure updates": This official page provides a filterable list of product updates, clearly categorizing them by status: "Now in preview" and "Now generally available." This demonstrates both the labeling of preview services and the continuous addition of features to GA services. (Source: Microsoft Azure Official Documentation)

Microsoft Azure Documentation, "Supplemental Terms of Use for Microsoft Azure Previews": This legal document outlines the terms for using preview services. It explains that previews are offered "as-is" and "with all faults," which necessitates their clear identification within the Azure portal. It also implicitly supports the idea that the transition to GA is managed, without a default requirement to recreate all resources. (Source: Microsoft Azure Legal Documentation)

Question: 196

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

Statements	Yes	No
When using an Azure ExpressRoute connection, inbound data traffic from an on-premises network to Azure is always free.	<input type="radio"/>	<input type="radio"/>
Outbound data traffic from Azure to an on-premises network is always free.	<input type="radio"/>	<input type="radio"/>
Data traffic between Azure services within the same Azure region is always free.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

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No

Explanation:

ExpressRoute Inbound Traffic: For Azure ExpressRoute, all inbound data transfers from an on-premises network to Azure are free of charge. You pay for the ExpressRoute circuit port speed (monthly fee) and for outbound data transfer, but not for data coming into Azure.

Outbound Data Traffic: Outbound data transfers from Azure data centers to external networks (including on-premises networks via the internet, VPN, or ExpressRoute) are charged per gigabyte. The specific rate depends on the region and the amount of data transferred. It is never free.

Intra-Region Traffic: While data transfer between services within the same Availability Zone in an Azure region is free, data transfer between different Availability Zones within the same region is not free. Since an Azure region can contain multiple Availability Zones, the statement that this traffic is "always free" is incorrect.

References:

Azure ExpressRoute Pricing: Microsoft's official documentation states, "Inbound data transfer is free of charge." This confirms the answer for the first statement.

Source: Microsoft Azure Documentation, "Azure ExpressRoute pricing," Data Transfer section.

Bandwidth Pricing Details: This official page details the costs for data transfer. It clearly shows charges for "Outbound data transfer" from Azure regions, confirming that it is not free.

Source: Microsoft Azure Documentation, "Bandwidth pricing details," Data transfer pricing section.

Intra-Region and Cross-Zone Traffic: The same bandwidth pricing documentation clarifies the costs for traffic within a region. It specifies that "Data transfer between Availability Zones" incurs a charge, making the third statement false.

Source: Microsoft Azure Documentation, "Bandwidth pricing details," Pricing for data transfer within and between regions section.

Question: 197

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

Authorization
Authentication
Federation
Ticketing

is the process of verifying a user's credentials.

Answer:

Authentication

Explanation:

Authentication is the security process of verifying the identity of a user or system. It answers the question, "Are you who you claim to be?" This is accomplished by checking one or more credentials, such as a password, a security token, or a biometric scan, against a database of authorized users. In contrast, authorization is the subsequent process that determines what an authenticated user is permitted to do. Federation involves establishing trust between different security domains, and ticketing is a mechanism (like Kerberos) that uses a validated identity to grant access to services.

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References:

National Institute of Standards and Technology (NIST). (2017). NIST Special Publication 800-63-3: Digital Identity Guidelines. Section 4.1, "Authentication and Lifecycle Processes." This document states, "Authentication is the process of verifying an identity asserted by a claimant to a verifier..."

Gollmann, D. (2011). Computer Security (3rd ed.). John Wiley & Sons.

In Chapter 13, "Authentication," Section 13.1, authentication is defined as the verification of a claimed identity based on presented credentials.

Saltzer, J. H., & Schroeder, M. D. (1975). "The Protection of Information in Computer Systems." Communications of the ACM, 18(7), 38-42. <https://doi.org/10.1145/361011.361062>

This foundational paper clearly distinguishes authentication (verifying user identity) from access control/authorization (deciding what an identified user can access).

Question: 198

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

From: Azure Control IAM
 Azure Event Hubs
 Azure Activity Log
 Azure Service Health

you can view which user turned off a specific virtual machine during the last 14 days.

Answer:

Azure Activity Log

Explanation:

The Azure Activity Log is a platform log that provides detailed records of subscription-level events in Azure. It captures all control-plane operations performed on resources, including who initiated the action, the time of the operation, and its status. Turning off (deallocating) a virtual machine is an administrative action on a resource, which is precisely the type of event the Activity Log is designed to track. The log retains data for 90 days, allowing you to review events from the last 14 days as specified in the scenario.

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The other options are incorrect for the following reasons:

- Azure Control IAM (Identity and Access Management) is used to manage access permissions, not to log actions performed by users.
- Azure Event Hubs is a data ingestion service for streaming large volumes of data, not a log of administrative actions.
- Azure Service Health reports on the health of Azure services themselves, not on user activities within a subscription.

References:

Microsoft Azure Documentation, "Overview of the Azure Activity log." Microsoft Learn. Retrieved September 10, 2025.

Reference: This document explicitly states, "The Activity log is a platform log in Azure that provides insight into subscription-level events... The Activity log contains the who, what, and when for any write operations (PUT, POST, DELETE) taken on the resources in your subscription... For example, the Activity log reports when a new resource is created or a virtual machine is started." Deallocating a VM falls under these operation types.

Microsoft Azure Documentation, "Azure Activity log schema." Microsoft Learn. Retrieved September 10, 2025.

Reference (caller field): The schema details for an Activity Log event include a caller property, which is defined as "Email address of the user who performed the operation... or a service principal name." This field directly identifies the user responsible for the action.

Microsoft Azure Documentation, "What is Azure role-based access control (Azure RBAC)?" Microsoft Learn. Retrieved September 10, 2025.

Reference (for incorrect option): This document clarifies that Azure RBAC is an "authorization system you use to manage access to Azure resources." Its function is to grant permissions, not to audit actions taken with those permissions.

Question: 199

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

If a resource group named RG1 has a delete lock, can delete RG1.

only a member of the global administrators group
the delete lock must be removed before an administrator
an Azure policy must be modified before an administrator
an Azure tag must be added before an administrator

Answer:

The delete lock must be removed before an administrator

Explanation:

An Azure resource lock, specifically a CanNotDelete lock, prevents a resource from being deleted by any user, regardless of their role-based access control (RBAC) permissions. This restriction applies even to users with the Owner or Global Administrator role. To successfully delete the resource group RG1, a user with the appropriate permissions (such as Microsoft.Authorization/locks/delete) must first explicitly remove the lock. Only after the lock has been removed can the deletion operation proceed.

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References:

Microsoft Azure Documentation. "Lock resources to prevent unexpected changes." Microsoft Learn, Microsoft. Accessed September 10, 2025. In the "Considerations before applying locks" section, it states, "Unlike role-based access control, you use management locks to apply a restriction across all users and roles." This confirms that RBAC roles cannot bypass the lock.

Microsoft Azure Documentation. "Permissions for locking resources." Microsoft Learn, Microsoft. Accessed September 10, 2025. In the permissions table for built-in roles, it specifies that actions like Microsoft.Authorization/locks/* are required to manage locks. This permission is necessary to remove the lock before the resource can be deleted.

Question: 200

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

Your company implements Azure policies
 DDoS protection
 Azure Information Protection
 Azure Active Directory (Azure AD) Identity Protection

to automatically add a watermark to Microsoft Word documents that contain credit card information.

Answer:

Azure Information Protection

Explanation:

Azure Information Protection (AIP) is the correct service for this task. AIP is a cloud-based solution that enables organizations to discover, classify, and protect documents and emails by applying labels. These labels can be configured to automatically apply visual markings, such as a watermark, when specific sensitive information types, like credit card numbers, are detected within the content of a document. The other options are incorrect; Azure policies manage resource governance, DDoS protection mitigates network attacks, and Azure AD Identity Protection focuses on securing user identities, not document content.

References:

Microsoft Learn, Microsoft Purview documentation. In "Learn about sensitivity labels", it states: "After a sensitivity label is applied to content, any configured protection settings for that label are enforced on the content. For example, a sensitivity label can... add watermarks or other visual markings to the content." (Section: What a sensitivity label is).

Microsoft Learn, Microsoft Purview documentation. The page "Automatically apply a sensitivity label to content" describes the process: "Auto-labeling policies... can automatically apply sensitivity labels to email messages and files that contain sensitive information." It lists "Financial data, such as credit card numbers" as a detectable sensitive information type. (Section: General workflow for auto-labeling).

Question: 201

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

Statements	Yes	No
From Azure Service Health, an administrator can view the health of all the services in an Azure environment.	<input type="radio"/>	<input type="radio"/>
From Azure Service Health, an administrator can create a rule to be alerted if an Azure service fails.	<input type="radio"/>	<input type="radio"/>
From Azure Service Health, an administrator can prevent a service failure.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

Explanation:

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Azure Service Health provides a personalized view of the health of the Azure services and regions that a user consumes. It tracks three types of health events: service issues, planned maintenance, and health advisories. Administrators can configure alerts using Azure Monitor to be notified of these service health events via various channels like email or SMS. However, Azure Service Health is a monitoring and notification tool. It informs administrators about problems and planned work but does not provide any capability to directly intervene or prevent a service failure within Microsoft's underlying infrastructure.

References:

Microsoft Learn. "What is Azure Service Health?". Microsoft Corporation. Accessed September 11, 2025. In the "Service Health events" section, the documentation states, "Service Health tracks three types of health events that may impact your resources: 1. Service issues... 2. Planned maintenance... 3. Health advisories..." This confirms that an administrator can view the health status of services.

Microsoft Learn. "Configure alerts for service health events". Microsoft Corporation. Accessed September 11, 2025. The overview section explicitly states, "This article shows you how to set up activity log alerts for service health notifications... You can configure alerts to notify you when service issues, planned maintenance, or other changes may affect the Azure services and regions you use." This directly supports the second statement.

Microsoft Learn. "Azure Service Health overview". Microsoft Corporation. Accessed September 11, 2025. The documentation describes Service Health as a service that provides "personalized guidance and support when issues with Azure services affect you." The focus is on awareness and response, not prevention of platform-level failures, which is Microsoft's responsibility. There is no mention of any feature allowing an administrator to prevent a service failure.

Question: 202

You plan to deploy several Azure virtual machines. You need to control the ports that devices on the internet can use to access the virtual machines. What should you use?

- A. an Azure Active Directory (AzureAD) role
- B. an Azure key vault
- C. an Azure Active Directory group
- D. a network security group (NSG)

Answer:

D

Explanation:

A Network Security Group (NSG) is the correct Azure resource for controlling network traffic. NSGs act as a basic, stateful firewall, containing a list of security rules that allow or deny network traffic to Azure resources. To control which ports are accessible from the internet to a virtual machine, you would create specific inbound security rules within an NSG. These rules are defined by source/destination IP address, port, and protocol. The NSG is then associated with either the virtual machine's network interface or its subnet to enforce these rules.

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Why Incorrect Options are Wrong:

- A. an Azure Active Directory (AzureAD) role: Manages user permissions to Azure resources (identity and access management), not network traffic filtering.
- B. an Azure key vault: Securely stores and manages secrets, keys, and certificates; it does not control network access.
- C. an Azure Active Directory group: Used to organize users and manage their access permissions collectively, not for network port control.

References:

1. Microsoft Learn. "Network security groups." Azure Virtual Network documentation. Accessed October 26, 2023. In the "Overview" section, it states, "You can use an Azure network security group to filter network traffic to and from Azure resources in an Azure virtual network. A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources."
2. Microsoft Learn. "How network security groups filter network traffic." Azure Virtual Network documentation. Accessed October 26, 2023. The document details how security rules are evaluated, specifying properties like "Source," "Source port ranges," "Destination," "Destination port ranges," and "Protocol" which are used to control traffic.
3. Microsoft Learn. "What is role-based access control (RBAC) for Azure resources?" Azure

Active Directory documentation. Accessed October 26, 2023. This document clarifies that Azure roles are for managing who has access to Azure resources and what they can do with them, which is distinct from network traffic control.

4. Microsoft Learn. "About Azure Key Vault." Azure Key Vault documentation. Accessed October 26, 2023. The "Overview" section explains that Key Vault is a service for safeguarding cryptographic keys and other secrets, confirming it is not used for network filtering.

Question: 203

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

You have an Azure virtual network named VNET1 in a resource group named RG1.

You assign the Azure Policy definition of Not Allowed Resource Type and specify that virtual networks are not an allowed resource type in RG1. VNET1

- is deleted automatically.
- is moved automatically to another resource group.
- continues to function normally.
- is now a read-only object.

Answer:

continues to function normally.

Explanation:

Azure Policy definitions with a Deny effect, such as the "Not Allowed Resource Type" policy, are evaluated and enforced during resource creation or update operations. They do not retroactively affect existing resources that were deployed before the policy was assigned.

In this scenario, VNET1 already exists within the resource group RG1. When the policy is applied, Azure's compliance scan will identify VNET1 as a "non-compliant" resource. However, the policy will not delete, move, or modify the operational state of this existing network. It will continue to function as it did before. The policy will only block future attempts to create new virtual networks within RG1 or to perform updates on VNET1 that trigger a policy evaluation.

References:

Microsoft Azure Documentation Understand Azure Policy effects:

Reference: In the "Deny" section, the documentation states, "Deny is used to prevent a resource request that doesn't match the defined standards...The creation or update of a resource is blocked." This clarifies that the effect applies to create/update actions, not to pre-existing resources. The "Evaluation timing" section further explains that evaluation happens before a resource create or update request is processed.

Microsoft Azure Documentation Get compliance data of Azure resources:

Reference: The "How compliance works" section explains that for existing resources, "After a policy or initiative is assigned... Resources that are non-compliant with an assigned policy or initiative are marked as Non-compliant." This confirms that existing resources are marked for their compliance state rather than being altered or deleted.

Question: 204

An Azure administrator plans to run a PowerShell script that creates Azure resources. You need to recommend which computer configuration to use to run the script. Which three computers can run the script? Each correct answer presents a complete solution NOTE: Each correct selection is worth one point.

- A. a computer that runs macOS and has PowerShell Core 6.0 installed
- B. a computer that runs Windows 10 and has the Azure PowerShell module installed
- C. a computer that runs Chrome OS and uses Azure Cloud Shell
- D. a computer that runs Linux and has the Azure CLI tools installed

Answer:

A, B, C

Explanation:

An Azure PowerShell script can be executed in any environment where PowerShell and the required Azure Az module are installed.

1. Windows 10 (B): This is a native environment for Windows PowerShell, and after installing the Azure Az PowerShell module, scripts can be run directly.
2. macOS (A): PowerShell is cross-platform and can be installed on macOS. Once PowerShell and the Azure Az module are installed, it becomes a valid environment for running the script.
3. Azure Cloud Shell (C): This is a browser-based shell accessible from any modern operating system, including Chrome OS. It comes pre-configured with PowerShell and the Azure Az module, requiring no local installation.

Why Incorrect Options are Wrong:

- D. A computer that runs Linux and has the Azure CLI tools installed: The Azure CLI is a separate command-line tool for managing Azure; it does not execute PowerShell scripts, which use a different syntax and command structure (cmdlets).

References:

1. Microsoft Learn. (2024). Install the Azure Az PowerShell module. "The Az PowerShell module is a rollup module. Installing it downloads the generally available Az PowerShell modules and makes their cmdlets available for use. The Az PowerShell module works with PowerShell 7.2 and later on all platforms including Windows, macOS, and Linux. It's also compatible with Windows PowerShell 5.1." This supports options A and B.
2. Microsoft Learn. (2024). Overview of Azure Cloud Shell. "Cloud Shell is an interactive, authenticated, browser-accessible shell for managing Azure resources... Cloud Shell offers a browser-accessible, pre-configured shell experience... Cloud Shell comes with your favorite

command-line tools and language support... PowerShell in Cloud Shell provides the Azure drive (Azure:)." This supports option C.

3. Microsoft Learn. (2024). What is the Azure CLI?. "The Azure command-line interface (Azure CLI) is a set of commands used to create and manage Azure resources... The Azure CLI commands are structured in groups and subgroups." This reference distinguishes the Azure CLI from Azure PowerShell, supporting the exclusion of option D.

Question: 205

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

Statements	Yes	No
An Azure subscription can have multiple account administrators.	<input type="radio"/>	<input type="radio"/>
An Azure subscription can be managed by using a Microsoft account only.	<input type="radio"/>	<input type="radio"/>
An Azure resource group can contain multiple Azure subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

No

Explanation:

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Statement 1: An Azure subscription can have only one Account Administrator. This role is the billing owner of the subscription and has permissions to manage billing and change the Service Administrator. While multiple users can be granted the Owner role through Azure Role-Based Access Control (RBAC) to manage all resources within the subscription, the specific Account Administrator role is limited to a single user.

Statement 2: Azure subscriptions are associated with a Microsoft Entra ID (formerly Azure Active Directory) tenant. Management access can be granted to various identity types within that tenant, including work or school accounts (native Entra ID users) and guest users from other directories, not just Microsoft accounts (e.g., @outlook.com).

Statement 3: The Azure resource hierarchy is structured with subscriptions at a higher level than resource groups. A resource group exists within a single subscription and serves as a container for resources. A resource group cannot contain a subscription; rather, a subscription contains multiple resource groups.

References:

Microsoft Learn. Add or change Azure subscription administrators. "By default, when you sign up for an Azure subscription, you are assigned the Account Administrator role... This role is the billing owner of the subscription. There's only one Account Administrator per Azure subscription."

Microsoft Learn. Azure fundamental concepts. "Resource groups are containers that hold related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. A resource group is created within a specific subscription."

Microsoft Learn. Accounts and subscriptions in Azure Active Directory. "Your Azure subscription has a trust relationship with Azure Active Directory (Azure AD). A subscription trusts Azure AD to authenticate users, services, and devices." This document details how work/school accounts from the associated directory are used for management.

Question: 206

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

Statements	Yes	No
Azure Active Directory Premium P2 guarantees at least 99.9 percent availability.	<input type="radio"/>	<input type="radio"/>
The Service Level Agreement (SLA) for Azure Active Directory Premium P2 is the same as the SLA for Azure Active Directory Free.	<input type="radio"/>	<input type="radio"/>
All paying Azure customers receive a credit if their monthly uptime percentage is below the guaranteed amount in the Service Level Agreement (SLA).	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

CertMage.com

Azure Active Directory Premium P2 guarantees at least 99.9 percent availability: Yes

- The official SLA for Azure Active Directory Premium P1 and P2 guarantees a 99.99% uptime. Since 99.99% is greater than 99.9%, the statement that it guarantees at least 99.9% availability is correct.

The Service Level Agreement (SLA) for Azure Active Directory Premium P2 is the same as the SLA for Azure Active Directory Free: No

- Azure Active Directory Premium P2 has a financially backed SLA of 99.99%. In contrast, the Azure Active Directory Free tier does not have a financially backed SLA. Therefore, their SLAs are not the same.

All paying Azure customers receive a credit if their monthly uptime percentage is below the guaranteed amount in the Service Level Agreement (SLA): Yes

- A core component of Azure's commitment to paying customers is the financially backed SLA. If a service's uptime drops below the guaranteed percentage for a given month, customers are

eligible to claim and receive a service credit toward their bill. This is the fundamental promise of an Azure SLA for paid services.

References:

Microsoft Azure Official Documentation. SLA for Azure Active Directory.

Introduction section: States, "For Azure Active Directory Premium P1 and P2, we guarantee at least 99.99% availability of the Azure Active Directory Service." This supports the "Yes" answer for the first statement.

Introduction section: Also notes, "For Azure Active Directory Free... we do not offer a financially backed service level agreement." This supports the "No" answer for the second statement.

General Terms, Claims section: Details the process for customers to claim service credits if the SLA is not met, confirming that paying customers are eligible for these credits. This supports the "Yes" answer for the third statement. This document is accessible via the Microsoft Azure legal information portal.

Question: 207

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

You deploy an Azure resource. The resource becomes unavailable for an extended period due to a service outage.

- Microsoft will refund your bank account.
- migrate the resource to another subscription.
- credit your Azure account.
- send you a coupon code that you can redeem for Azure credits.

Answer:

Credit your Azure account.

Explanation:

According to Microsoft's Service Level Agreements (SLAs), when an Azure service fails to meet its guaranteed uptime, the designated remedy is to provide the customer with service credits. These credits are a percentage of the applicable monthly service fees and are applied directly to the customer's Azure account to be used against future payments. Customers are required to submit a claim to Microsoft to receive these credits. This policy ensures compensation for downtime without issuing direct monetary refunds to a bank account.

References:

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Microsoft Azure Documentation, "Service Level Agreements (SLA) for Online Services".

Section: General Terms Claims

Content: The documentation specifies that to receive compensation for an SLA breach, a customer must submit a claim. If the claim is validated, Microsoft provides a "Service Credit," which is defined as a percentage of the monthly service fees credited to the customer's account. Microsoft Azure Legal, "Service Level Agreement for Microsoft Online Services".

Section: 1.5, Service Credits

Content: This legal document explicitly states, "Service Credits are your sole and exclusive remedy for any performance or availability issues for any Service under this SLA and the Agreement." It clarifies that credits are applied against future fees owed by the customer.

Microsoft Azure Documentation, "SLA summary for Azure services".

Content: This summary page links to individual SLAs for every Azure service (e.g., Virtual Machines, SQL Database). Each document contains a table that details the "Service Credit Percentage" a customer will receive based on the measured monthly uptime. This consistently shows the compensation model is based on credits, not refunds or other methods.

Question: 208

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

Statements	Yes	No
Adding resource groups in an Azure subscription generates additional costs.	<input type="radio"/>	<input type="radio"/>
Copying 10 GB of data to Azure from an on-premises network over a VPN generates additional Azure data transfer costs.	<input type="radio"/>	<input type="radio"/>
Copying 10 GB of data from Azure to an on-premises network over a VPN generates additional Azure data transfer costs.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

Resource Groups: A resource group is a logical container for managing Azure resources.

Creating a resource group itself incurs no cost. You are only billed for the Azure resources (like virtual machines or storage accounts) that are deployed within the group.

Data Ingress (to Azure): Data transfer into Azure data centers, known as ingress, is free. This applies whether the data is coming from an on-premises network over the internet or through a private connection like a VPN.

Data Egress (from Azure): Data transfer out of Azure data centers, known as egress, is subject to charges. Copying data from Azure to an on-premises location, even over a VPN, is considered outbound data transfer and will incur costs based on the amount of data transferred.

References:

Azure Resource Manager Overview. Microsoft Documentation, "Azure Resource Manager overview". In the section titled "Terminology," it clarifies that a resource group is a container and under the "Manage costs" section of related documentation, it is established that only the resources within the group have associated costs.

Azure Bandwidth Pricing. Microsoft Azure, "Bandwidth pricing details". The pricing table on this official page explicitly states that Inbound data transfers are "Free".

Azure VPN Gateway Pricing. Microsoft Azure, "VPN Gateway pricing". This page details the costs

associated with VPN gateways. Under the "Data Transfer" section, it confirms that outbound data transfers from a virtual network to an on-premises site are charged at the standard outbound data transfer rates, corroborating the cost for data egress.

Question: 209

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

You have several virtual machines in an Azure subscription. You create a new subscription.

The virtual machines cannot be moved to the new subscription.

The virtual machines can be moved to the new subscription.

The virtual machines can be moved to the new subscription only if they are all in the same resource group.

The virtual machines can be moved to the new subscription only if they run Windows Server 2016.

Answer:

The virtual machines can be moved to the new subscription.

Explanation:

Azure Resource Manager enables the movement of resources, including virtual machines, between different subscriptions. This is a standard administrative operation. For the move to be successful, both the source and destination subscriptions must be within the same Azure Active Directory (Azure AD) tenant. The operating system of the virtual machine (e.g., Windows Server 2016, Linux) is not a limiting factor for the move. While related resources like network interfaces and disks must also be moved, the virtual machines do not all need to reside in the same source resource group to be moved.

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References:

Microsoft Learn (Official Azure Documentation). "Move resources to a new resource group or subscription." Microsoft Docs. Accessed September 11, 2025. In the Overview section, the document explicitly states, "This article shows you how to move Azure resources to either another Azure subscription or another resource group under the same subscription."

Microsoft Learn (Official Azure Documentation). "Move guidance for virtual machines." Microsoft Docs. Accessed September 11, 2025. This document provides specific checklists and procedures for moving virtual machines, confirming the capability. The Move support for virtual machines section details which associated resources are supported for a move operation, reinforcing that VMs are indeed movable assets.

Question: 210

Your Azure environment contains multiple Azure virtual machines. You need to ensure that a virtual machine named VM1 is accessible from the Internet over HTTP. What are two possible solutions? Each correct answer presents a complete solution.

- A. Modify a DDoS protection plan.
- B. Modify an Azure firewall.
- C. Modify an Azure Traffic Manager profile.
- D. Modify a network security group (NGS)

Answer:

B, D

Explanation:

To make a virtual machine accessible from the internet over a specific protocol like HTTP (port 80), you must configure a network filtering rule. Both Azure Firewall and Network Security Groups (NSGs) serve this purpose. An NSG can be associated with a virtual machine's network interface or its subnet to filter traffic. An inbound security rule can be added to the NSG to allow traffic on port 80. Similarly, if traffic is routed through an Azure Firewall, a network rule can be created on the firewall to permit the same traffic, thus achieving the goal.

Why Incorrect Options are Wrong:

- A. Modify a DDoS protection plan.

A DDoS protection plan is designed to mitigate large-scale denial-of-service attacks; it does not define rules for allowing or denying specific types of traffic like HTTP.

- C. Modify an Azure Traffic Manager profile.

Azure Traffic Manager is a DNS-based load balancer that directs traffic to endpoints. It does not control network access or open ports on the virtual machines themselves.

References:

1. Microsoft Learn. "Network security groups." Azure Virtual Network documentation. Accessed May 20, 2024. In the "Introduction" section, it states, "You can use an Azure network security group to filter network traffic between Azure resources in an Azure virtual network. A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources."
2. Microsoft Learn. "What is Azure Firewall?" Azure Firewall documentation. Accessed May 20, 2024. The "Features" section details its capabilities, including "Network traffic filtering rules," which states you can "Create allow or deny network filtering rules by source and destination IP address, port, and protocol."

3. Microsoft Learn. "What is Azure DDoS Protection?" Azure DDoS Protection documentation. Accessed May 20, 2024. The overview explains its purpose is to defend "against large-scale network layer (layer 3/4) attacks," not to configure port access rules.
4. Microsoft Learn. "What is Traffic Manager?" Azure Traffic Manager documentation. Accessed May 20, 2024. The "Overview" section clarifies, "Azure Traffic Manager is a DNS-based traffic load balancer. This service allows you to distribute traffic to your public facing applications across the global Azure regions." This confirms it operates at the DNS layer, not the network packet filtering layer.

Question: 211

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

You can enable just in time (JIT) VM access by using

Azure Bastion
Azure Firewall
Azure Front Door
Azure Security Center

Answer:

Azure Security Center

Explanation:

Just-in-Time (JIT) VM access is a feature of Microsoft Defender for Cloud (formerly known as Azure Security Center). This security feature locks down inbound traffic to your Azure Virtual Machines by creating rules in the associated Network Security Group (NSG) or Azure Firewall. When a user with the necessary role-based access control (RBAC) permissions requests access to a VM, Defender for Cloud temporarily modifies the rules to allow access from the user's specific IP address for a pre-approved amount of time. This practice minimizes the attack surface by ensuring that management ports (like RDP and SSH) are not left open permanently.

References:

Microsoft Azure Documentation Microsoft Defender for Cloud: "Understanding just-in-time (JIT) VM access" - This official document explicitly states, "Microsoft Defender for Cloud's just-in-time (JIT) VM access helps you control access to your Azure Virtual Machines." It details how the feature works by locking down ports and opening them on-demand.

Source: <https://learn.microsoft.com/en-us/azure/defender-for-cloud/just-in-time-access-overview>

Microsoft Azure Documentation Microsoft Defender for Cloud: "Secure your management ports with just-in-time access" - This guide provides the steps to enable and request JIT access through the Defender for Cloud portal, reinforcing that it is the service responsible for providing this capability.

Source: <https://learn.microsoft.com/en-us/azure/defender-for-cloud/just-in-time-access-usage>

Question: 212

HOTSPOT You plan to create an Azure virtual machine. You need to identify which storage service must be used to store the data disks of the virtual machine. What should you identify? To answer, select the appropriate service in the answer area.

The screenshot shows a grid of four service cards:

- Containers**: Scalable, cost-effective storage for unstructured data. [Learn more](#)
- File shares**: Serverless SMB file shares. [Learn more](#)
- Tables**: Tabular data storage. [Learn more](#) (This card is highlighted with a blue border)
- Queues**: Effectively scale apps according to traffic. [Learn more](#)

Answer:

Containers

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Explanation:

Azure Virtual Machine disks, including both operating system (OS) and data disks, are stored as Virtual Hard Drives (VHDs). These VHD files are implemented in Azure as page blobs. Page blobs are a type of blob storage specifically designed and optimized for random read/write access, which is required for virtual machine disks. All blobs, including page blobs, must be stored within a container. Therefore, the "Containers" service, which represents Azure Blob Storage, is the correct storage service to use for the data disks of a virtual machine.

References:

Microsoft Learn, Azure Documentation. Introduction to Azure managed disks. "Azure managed disks are block-level storage volumes that are managed by Azure and used with Azure Virtual Machines... Behind the scenes, managed disks are stored as page blobs in an Azure storage account."

Microsoft Learn, Azure Documentation. What is Azure Blob storage?. "Blobs are stored in containers, which help you organize your sets of blobs like you would organize files in folders on your computer."

Microsoft Learn, Azure Documentation. Understanding block blobs, append blobs, and page blobs. "Page blobs store virtual hard drive (VHD) files and serve as disks for Azure Virtual Machines (IaaS disks)." This section clarifies the specific blob type used for VM disks.

Question: 213

DRAG DROP Match the Azure service to the correct description. Instructions: To answer, drag the appropriate Azure service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all NOTE: Each correct match is worth one point.

Answer Options		Answer Area
Azure Machine Learning	Azure IoT Hub	
Azure Bot Services	Azure Functions	
		Provides a digital online assistant that provides speech support
		Uses past trainings to provide predictions that have high probability
		Provides serverless computing functionalities
		Processes data from millions of sensors

Answer:

Provides a digital online assistant that provides speech support

Azure Bot Services

Uses past trainings to provide predictions that have high probability

Azure Machine Learning

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Provides serverless computing functionalities

Azure Functions

Processes data from millions of sensors

Azure IoT Hub

Explanation:

Azure Bot Services is the correct choice for a digital online assistant because it's a platform designed specifically for creating, deploying, and managing intelligent bots that can interact with users through conversations, including text and speech.

Azure Machine Learning is a cloud-based service for the entire machine learning lifecycle. Its core purpose is to use data from "past trainings" to build predictive models, which aligns perfectly with the description.

Azure Functions is the primary serverless compute service in Azure. It allows developers to run

event-triggered code without having to explicitly provision or manage the underlying server infrastructure.

Azure IoT Hub is designed to be a central message hub for secure and reliable bi-directional communication between IoT applications and millions of devices, such as sensors. It's built to handle massive volumes of data from these devices.

References:

Azure Bot Services: Microsoft. (n.d.). What is Azure Bot Service? Azure Documentation. Retrieved from <https://docs.microsoft.com/en-us/azure/bot-service/bot-service-overview>.

Reference Details: In the "Overview" section, the documentation states, "Users can interact with bots using text, cards, or speech." This directly supports its role as a digital assistant with speech capabilities.

Azure Machine Learning: Microsoft. (n.d.). What is Azure Machine Learning? Azure Documentation. Retrieved from <https://docs.microsoft.com/en-us/azure/machine-learning/overview-what-is-azure-machine-learning>.

Reference Details: The "What is machine learning?" section explains, "Machine learning is a data science technique that allows computers to use existing data to forecast future behaviors, outcomes, and trends. By using machine learning, computers learn without being explicitly programmed." This confirms its function of using past training for predictions.

Azure Functions: Microsoft. (n.d.). An introduction to Azure Functions. Azure Documentation. Retrieved from <https://docs.microsoft.com/en-us/azure/azure-functions/functions-overview>.

Reference Details: The introductory paragraph states, "Azure Functions is a serverless solution that allows you to write less code, maintain less infrastructure, and save on costs. Instead of worrying about deploying and maintaining servers, the cloud infrastructure provides all the up-to-date servers you need to keep your application running at scale." This is the definition of serverless computing.

Azure IoT Hub: Microsoft. (n.d.). What is Azure IoT Hub? Azure Documentation. Retrieved from <https://docs.microsoft.com/en-us/azure/iot-hub/about-iot-hub>.

Reference Details: The "Overview" section states, "IoT Hub is a managed service... that acts as a central message hub for bi-directional communication between your IoT application and the devices it manages... IoT Hub can scale to millions of simultaneously connected devices and millions of events per second." This supports its role in processing data from millions of sensors.

Question: 214

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

Statements	Yes	No
All the Azure resources deployed to a resource group must use the same Azure region.	<input type="radio"/>	<input type="radio"/>
If you assign a tag to a resource group, all the Azure resources in that resource group are assigned to the same tag.	<input type="radio"/>	<input type="radio"/>
If you assign permissions for a user to manage a resource group, the user can manage all the Azure resources in that resource group.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

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Region: A resource group has a specific location where its metadata is stored. However, the resources contained within that resource group can exist in different regions. This flexibility allows for organizing related resources that may be distributed geographically for performance or redundancy reasons.

Tags: Tags are not inherited. When a tag is applied to a resource group, it is applied only to the resource group itself, not to the individual resources within it. Each resource must be tagged separately.

Permissions: Azure Role-Based Access Control (RBAC) permissions are inherited. When you assign a role to a user at a specific scope, such as a resource group, those permissions are propagated down to all the resources contained within that scope.

References:

Microsoft Azure Documentation. Resource groups. "A resource group's location specifies where its metadata is stored... The location of the resource group can be different than the location of its resources."

Microsoft Azure Documentation. Use tags to organize your Azure resources and management hierarchy. "Tags applied to the resource group are not inherited by the resources in that resource

group."

Microsoft Azure Documentation. What is Azure role-based access control (Azure RBAC)?. "When you assign a role at a parent scope, those permissions are inherited by the child scopes. For example... If you assign the Contributor role to a user at the resource group scope, they can modify all resources in the resource group."

Question: 215

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

You plan to deploy 20 virtual machines to an Azure environment. To ensure that a virtual machine named VM1 cannot connect to the other virtual machines, VM1 must

be deployed to a separate virtual network.

run a different operating system than the other virtual machines.

be deployed to a separate resource group.

have two network interfaces.

Answer:

be deployed to a separate virtual network.

Explanation:

In Microsoft Azure, a Virtual Network (VNet) is the fundamental building block that provides network isolation. By default, virtual machines within the same VNet can communicate with each other, while virtual machines in different VNets cannot. Placing the VM named VM1 into its own, separate VNet ensures it is isolated from the other 20 virtual machines, which would reside in a different VNet. The other options are incorrect; resource groups are for management and billing, the operating system doesn't control network-level connectivity, and adding network interfaces does not inherently create isolation.

References:

Microsoft Azure Documentation, "What is Azure Virtual Network?": This document explicitly states, "Azure Virtual Network...enables many types of Azure resources, such as Azure Virtual Machines (VM), to securely communicate with each other, the internet, and on-premises networks... An Azure virtual network is isolated from other Azure virtual networks." This confirms that VNets are the primary mechanism for network isolation.

Microsoft Azure Documentation, "Virtual network traffic routing": This source details how Azure routes traffic and reinforces the default behavior: "Azure automatically creates a route table for each subnet within an Azure virtual network...By default, the route table contains a system route for communication between all address ranges within a virtual network." It also clarifies that communication between different VNets requires explicit configuration like VNet peering, which is not present by default.

Microsoft Azure Documentation, "Azure resource groups": This reference clarifies the purpose of resource groups: "A resource group is a container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group." This shows that resource groups are for logical management and organization, not network isolation.

Question: 216

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

Data that is stored in the Archive access tier of an Azure Storage account

can be accessed at any time by using azcopy.exe.

can only be read by using Azure Backup.

must be restored before the data can be accessed.

must be rehydrated before the data can be accessed.

Answer:

must be rehydrated before the data can be accessed.

Explanation:

Data stored in the Azure Storage Archive access tier is offline, providing the lowest storage cost. To read or modify a blob in the Archive tier, it must first be brought into an online state by changing its tier to either Hot or Cool. This specific process is known as rehydration. The rehydration process can take several hours to complete, depending on the priority chosen for the operation (Standard or High). Once the blob is rehydrated to an online tier, it can be accessed like any other blob in that tier.

References:

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Microsoft Azure Documentation, "Blob rehydration from the Archive tier":

Reference: "To read data in archive storage, you must first change the tier of the blob to an online tier, either hot or cool. This process is known as rehydration and can take hours to complete."

Source: Microsoft Learn, Azure Blob Storage documentation.

Microsoft Azure Documentation, "Access tiers for blob data - hot, cool, and archive":

Reference: Under the "Archive access tier" section, it states, "While a blob is in the archive tier, it's offline and can't be read or modified... To read or download a blob in the archive tier, you must first rehydrate it to an online tier."

Source: Microsoft Learn, Azure Blob Storage documentation.

Question: 217

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

From Azure Control IAM,
 Azure Event Hubs,
 Azure Activity Log,
 Azure Service Health,

you can view which user turned off a specific virtual machine during the last 14 days.

Answer:

Azure Activity Log

Explanation:

The Azure Activity Log is the correct service for auditing user actions. It is a platform log that provides detailed records of subscription-level events in Azure. Specifically, it captures all control-plane operations, which include actions like creating, updating, or deleting resources. When a user turns off (deallocates) a virtual machine, this action is recorded in the Activity Log. The log entry includes crucial information such as the user who initiated the operation (the "caller"), the time of the event, and the resource affected. Azure retains Activity Log data for 90 days by default, which satisfies the 14-day requirement.

References:

Microsoft Azure Documentation, "Azure Activity log". Microsoft Learn.

Reference: This document explicitly states, "The Activity log is a platform log in Azure that provides insight into subscription-level events... The Activity log contains all write operations (PUT, POST, DELETE) for your resources... For each write operation, you can see who made the change and when it was made." Deallocating a VM is a POST operation and is therefore logged. Microsoft Azure Documentation, "Overview of the Azure platform logs". Microsoft Learn, "Activity log" section.

Reference: This source clarifies the scope: "The Activity log... reports control-plane events for your subscriptions. You can use the Activity log to determine the 'what, who, and when' for any write operations (PUT, POST, DELETE) taken on the resources in your subscription." This directly aligns with the question's need to identify "which user" performed the action.

Microsoft Azure Documentation, "What is Azure role-based access control (Azure RBAC)?".

Microsoft Learn.

Reference: This document clarifies that Azure IAM (specifically RBAC) is for managing permissions and authorizing access, not for logging the actions taken with those permissions. This explains why Azure Control IAM is incorrect.

Question: 218

DRAG DROP Match the Azure service to the correct description. Instructions: To answer, drag the appropriate Azure service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all NOTE: Each correct match is worth one point.

Answer Options	Answer Area
Azure HDInsight	A managed relational cloud database service
Azure Data Lake Analytics	A cloud-based service that leverages massively parallel processing (MPP) to quickly run complex queries across petabytes of data in a relational database
Azure Synapse Analytics	Can run massively parallel data transformation and processing programs across petabytes of data
Azure SQL Database	An open-source framework for the distributed processing and analysis of big data sets in clusters

Answer:

Azure SQL Database: A managed relational cloud database service

Azure Synapse Analytics: A cloud-based service that leverages massively parallel processing (MPP) to quickly run complex queries across petabytes of data in a relational database

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Azure Data Lake Analytics: Can run massively parallel data transformation and processing programs across petabytes of data

Azure HDInsight: An open-source framework for the distributed processing and analysis of big data sets in clusters (description completed based on service function)

Explanation:

Azure SQL Database is a fully managed platform as a service (PaaS) relational database designed for applications requiring a traditional database with features like transactions and referential integrity.

Azure Synapse Analytics is an enterprise analytics service that includes dedicated SQL pools (formerly SQL DW) which use a Massively Parallel Processing (MPP) architecture to optimize performance for large-scale data warehousing and analytics queries.

Azure Data Lake Analytics was an on-demand job service designed to run U-SQL scripts at scale for big data transformation and processing. Although largely succeeded by other services, its core function matches this description.

Azure HDInsight is a managed cloud service that simplifies running big data frameworks like Apache Hadoop, Spark, and Kafka, making it easy to process massive amounts of data in a distributed environment.

References:

Azure SQL Database: Microsoft. (n.d.). What is Azure SQL Database?. Microsoft Learn.

Retrieved from docs.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview. In the "Overview" section, it is defined as a "fully managed platform as a service (PaaS) database engine".

Azure Synapse Analytics: Microsoft. (n.d.). What is dedicated SQL pool (formerly SQL DW) in Azure Synapse Analytics?. Microsoft Learn. Retrieved from docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-overview-what-is. The "Massively Parallel Processing (MPP) architecture" section details how it runs complex queries across large datasets.

Azure Data Lake Analytics: Microsoft. (n.d.). What is Azure Data Lake Analytics?. Microsoft Learn. Retrieved from

docs.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-overview. The introduction states, "Azure Data Lake Analytics is an on-demand analytics job service that simplifies big data... you can run massively parallel data transformation and processing programs".

Azure HDInsight: Microsoft. (n.d.). What is Azure HDInsight?. Microsoft Learn. Retrieved from docs.microsoft.com/en-us/azure/hdinsight/hdinsight-overview. The "What is HDInsight and the Hadoop technology stack" section describes it as "a managed, full-spectrum, open-source analytics service in the cloud for enterprises."

Question: 219

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

Statements	Yes	No
Azure PowerShell modules can be installed on macOS.	<input type="radio"/>	<input type="radio"/>
Azure Cloud Shell can be accessed from a web browser on a Linux computer.	<input type="radio"/>	<input type="radio"/>
The Azure portal can only be accessed from a Windows device.	<input type="radio"/>	<input type="radio"/>

Answer:

YES

YES

NO

Explanation:

Azure PowerShell modules can be installed on macOS. This statement is Yes (True). PowerShell is a cross-platform framework available on Windows, Linux, and macOS. The Azure Az PowerShell module can be installed and run on all supported versions of these operating systems, allowing for Azure resource management directly from a macOS device.

Azure Cloud Shell can be accessed from a web browser on a Linux computer. This statement is Yes (True). Azure Cloud Shell is a browser-based shell environment hosted in the cloud. It is accessible through the Azure portal or directly via shell.azure.com from any modern web browser on any platform, including Linux, macOS, and Windows.

The Azure portal can only be accessed from a Windows device. This statement is No (False). The Azure portal is a web-based management console. It is designed to be accessible from any device with a modern web browser that supports its standards, regardless of the underlying operating system. This includes devices running Windows, macOS, and various distributions of Linux.

References:

Microsoft Learn. (2024). Install the Azure Az PowerShell module. "The Az PowerShell module is a rollup module. Installing it downloads the generally available Az PowerShell modules and makes their cmdlets available for use. The Az PowerShell module works with PowerShell 7.2 or higher on all platforms including Windows, Linux, and macOS."

Microsoft Learn. (2023). Overview of Azure Cloud Shell. "Azure Cloud Shell is an interactive, authenticated, browser-accessible terminal for managing Azure resources. It provides the flexibility of choosing the shell experience that best suits the way you work, either Bash or PowerShell." The document implicitly supports cross-platform browser access.

Microsoft Learn. (2024). Azure portal overview. "The Azure portal is a web-based, unified console that provides an alternative to command-line tools... You can manage your Azure subscription using a graphical user interface. You can access the portal from any device with a modern web browser."

Microsoft Learn. (2024). Supported devices (for Azure Portal). "The Azure portal runs on all modern desktops, tablets, and mobile devices." This section lists supported browsers without restricting the operating system.

Question: 220

Your company has an Azure subscription that contains the following unused resources:

- * 20 user accounts in Azure Active Directory (Azure AD)
- * Five groups in Azure AD
- * 10 public IP addresses
- * 10 network interfaces

You need to reduce the Azure costs for the company. Which unused resources should you remove?

- A. the user accounts
- B. the network interfaces
- C. the public IP addresses
- D. the groups

Answer:

C

Explanation:

In Azure, certain resources incur costs even when not actively in use or attached to other services. Public IP addresses are a prime example. Both static and dynamic public IP addresses that are not associated with a running Azure resource (like a virtual machine or load balancer) are charged at a nominal hourly rate. Removing these 10 unused public IP addresses will directly eliminate this ongoing expense. Conversely, resources like user accounts and groups in the Azure AD Free tier, and standalone network interfaces, do not have a direct cost associated with them simply for existing in the subscription. Therefore, deleting the public IP addresses is the correct action to reduce costs.

Why Incorrect Options are Wrong:

- A. the user accounts

Azure AD user accounts are free within the generous limits of the Azure AD Free tier, which is included with an Azure subscription.

- B. the network interfaces

Standalone network interfaces (NICs) that are not attached to a running resource, such as a virtual machine, do not incur a charge.

- C. the groups

Azure AD groups are considered directory objects and are free within the Azure AD Free tier, so removing them provides no direct cost savings.

References:

1. Microsoft Azure, IP Addresses Pricing: Under the "Public IP Addresses" section, it states, "We charge a nominal fee for public IP addresses when they are not associated with a virtual machine." This confirms that unused public IPs incur costs.

Source: <https://azure.microsoft.com/en-us/pricing/details/ip-addresses/> (Refer to the main pricing table and associated notes).

2. Microsoft Docs, Create, change, or delete a network interface: This official documentation states, "There is no charge for the virtual network interface itself. You are charged for the virtual machine that the network interface is attached to."

Source:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface#pricing> (Refer to the "Pricing" section).

3. Microsoft Azure, Azure Active Directory Pricing: The pricing page details the features of the Free tier, which is included with a subscription to a commercial online service, e.g., Azure. It includes up to 500,000 directory objects (which covers users and groups) at no cost.

Source: <https://azure.microsoft.com/en-us/pricing/details/active-directory/> (Refer to the "Free" column in the feature comparison table).

Question: 221

Which task can you perform by using Azure Advisor?

- A. Integrate Active Directory and Azure Active Directory (Azure AD).
- B. Estimate the costs of an Azure solution.
- C. Confirm that Azure subscription security follows best practices.
- D. Evaluate which on-premises resources can be migrated to Azure.

Answer:

C

Explanation:

Azure Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments. It analyzes your resource configuration and usage telemetry and then recommends solutions to improve the reliability, security, performance, operational excellence, and cost-effectiveness of your Azure resources. The security recommendations are integrated with Microsoft Defender for Cloud to provide a unified view of security best practices and help you confirm that your subscription's security posture is sound.

Why Incorrect Options are Wrong:

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- A. Integrating on-premises Active Directory with Azure AD is a task performed by the Azure AD Connect tool, not Azure Advisor.
- B. Estimating the costs of a new Azure solution is the primary function of the Azure Pricing Calculator or the Total Cost of Ownership (TCO) Calculator.
- D. Evaluating on-premises resources for migration to Azure is performed using the Azure Migrate service, which provides discovery and assessment tools.

References:

1. Microsoft Learn. (2023). "Introduction to Azure Advisor." Microsoft Docs. In the "What is Advisor?" section, it states, "Advisor provides recommendations for Reliability, Security, Performance, Operational Excellence, and Cost." This confirms that security is a core pillar of Advisor's function.
2. Microsoft Learn. (2023). "Security recommendations in Azure Advisor." Microsoft Docs. This document specifies, "Advisor uses Microsoft Defender for Cloud to find security vulnerabilities and misconfigurations. Then, Advisor suggests solutions that will help you improve the security posture of your organization." This directly supports option C.
3. Microsoft Learn. (2023). "What is the Azure Pricing Calculator?" Microsoft Docs. This page describes the calculator as a tool to "estimate your expected monthly bill" for new deployments, which is the task described in option B.

4. Microsoft Learn. (2023). "What is Azure AD Connect?" Microsoft Docs. The "Overview" section explains that Azure AD Connect is the tool designed to meet hybrid identity goals, including synchronizing on-premises directories with Azure AD, as mentioned in option A.
5. Microsoft Learn. (2023). "About Azure Migrate." Microsoft Docs. The "Overview" section describes Azure Migrate as the central hub to "discover, assess, and migrate on-premises servers, apps, and data to the Azure cloud," which is the task in option D.

Question: 222

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

Statements	Yes	No
General Data Protection Regulation (GDPR) defines data protection and privacy rules.	<input type="radio"/>	<input type="radio"/>
General Data Protection Regulation (GDPR) applies to companies that offer goods or services to individuals in the EU.	<input type="radio"/>	<input type="radio"/>
Azure can be used to build a General Data Protection Regulation (GDPR)-compliant infrastructure.	<input type="radio"/>	<input type="radio"/>

Answer:

YES

YES

YES

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Explanation:

The General Data Protection Regulation (GDPR) is a comprehensive legal framework established by the European Union. Its primary purpose is to standardize data protection laws across all member countries, providing individuals with greater control over their personal data and defining the rules for how organizations must handle that data.

The GDPR has a broad territorial scope. According to Article 3(2), the regulation applies to organizations not established within the EU if their activities involve offering goods or services to data subjects in the EU or monitoring their behavior as far as their behavior takes place within the EU.

Microsoft Azure provides a platform with a wide array of security and privacy services, features, and contractual commitments that enable customers to build and manage GDPR-compliant solutions. While using Azure does not automatically confer compliance (as it is a shared responsibility), the platform provides the necessary technical controls to help organizations meet their GDPR obligations.

References:

- European Union. (2016). Regulation (EU) 2016/679 of the European Parliament and of the Council (General Data Protection Regulation). Official Journal of the European Union, L 119/1.
- Article 1, Subject-matter and objectives: "This Regulation lays down rules relating to the protection of natural persons with regard to the processing of personal data and rules relating to the free movement of personal data."
- Article 3, Territorial scope: "This Regulation applies to the processing of personal data of data subjects who are in the Union by a controller or processor not established in the Union, where the processing activities are related to: (a) the offering of goods or services... to such data subjects in the Union..."
- Microsoft. (2024). Microsoft Azure Compliance Offerings. Microsoft Learn.
- GDPR Section: "Azure provides a set of tools and features to help organizations meet the requirements of the GDPR... Microsoft offers data processing agreements and other contractual safeguards that support customers' GDPR compliance efforts."
- Voigt, P., & Von dem Bussche, A. (2017). The EU General Data Protection Regulation (GDPR): A Practical Guide. Springer. <https://doi.org/10.1007/978-3-319-57959-7>
- Chapter 3, Scope of the GDPR, Section 3.2, Territorial Scope: Discusses the extraterritorial application of the regulation to companies offering goods or services to individuals in the EU, aligning with Article 3(2).

Question: 223

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

An organization that hosts its infrastructure

in a private cloud

in a hybrid cloud

in the public cloud

on a Hyper-V host

no longer requires a data center.

Answer:

in the public cloud

Explanation:

An organization that moves its entire infrastructure to a public cloud offloads the responsibility of owning, managing, and maintaining the physical hardware and the facility in which it is housed. In the public cloud model, a third-party provider (e.g., AWS, Microsoft Azure, Google Cloud) owns and operates all the infrastructure components, including the data centers. The services are then delivered to the organization over the internet. This model allows an organization to completely eliminate the need for its own on-premises data center. In contrast, private clouds are often hosted on-premises, hybrid clouds involve an on-premises component, and a Hyper-V host is a physical server that would reside within a data center.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (NIST Special Publication 800-145). National Institute of Standards and Technology.

Section 2, Definitions: Defines Public Cloud as: "The cloud infrastructure is provisioned for open use by the general public. It may be owned, managed, and operated by a business, academic, or government organization, or some combination of them. It exists on the premises of the cloud provider." This explicitly states the infrastructure resides at the provider's location, not the consumer's.

DOI: <https://doi.org/10.6028/NIST.SP.800-145>

Microsoft Azure Documentation. What is a public cloud?

Overview Section: "Public clouds are the most common type of cloud computing deployment. The cloud resources (like servers and storage) are owned and operated by a third-party cloud service provider and delivered over the Internet... With a public cloud, all hardware, software, and other supporting infrastructure is owned and managed by the cloud provider." This confirms that the provider manages the physical infrastructure, removing the need for the customer to do so.

Armbrust, M., et al. (2010). A View of Cloud Computing. Communications of the ACM, 53(4), 50-58.

Section 2.1, Defining Cloud Computing: The paper describes public cloud computing (termed

"Utility Computing") as a model where users purchase computing resources from external providers, implicitly removing the need to host those resources internally.

DOI: <https://doi.org/10.1145/1721654.1721672>

Question: 224

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

Your Azure trial account expired last week.

You are now unable to

- create additional Azure Active Directory (Azure AD) user accounts.
- start an existing Azure virtual machine.
- access your data stored in Azure.
- access the Azure portal.

Answer:

start an existing Azure virtual machine.

Explanation:

When an Azure free trial account expires, the associated subscription becomes disabled. A disabled subscription prevents the use of any services that would incur costs. Virtual machines (VMs) are deallocated, and you are unable to start or manage them. While the subscription is disabled, you can still access the Azure portal to manage the subscription (e.g., upgrade to a pay-as-you-go model). For a grace period, typically 30 days, your data remains accessible before being permanently deleted. Basic Azure Active Directory (Azure AD) services, which are part of the perpetual free tier, also remain available for managing users. Therefore, the most immediate and accurate consequence is the inability to run compute resources like a VM.

References:

Microsoft Azure Documentation, "Azure free account FAQ".

Section: "What happens after I use my \$200 free credit or I'm at the end of 30 days?"

Content: This section explains that after the trial period, the subscription is disabled. To continue using Azure services, you must upgrade your subscription. This implicitly confirms that active services, which incur costs, will be stopped.

Microsoft Azure Documentation, "Reactivate a disabled Azure subscription".

Section: "Your subscription is disabled"

Content: This document states that for a disabled subscription (which includes an expired free trial), "Virtual machines are deallocated. Other Azure resources are not accessible... Your data is frozen and available to you if you decide to reactivate your subscription." This directly confirms that VMs are stopped and cannot be started.

Microsoft Azure Documentation, "Azure Active Directory pricing".

Section: "Free" edition.

Content: This page shows that Azure AD comes with a "Free" edition that is included with a subscription to a commercial online service like Azure. This free tier is not part of the trial's paid services and remains functional even after the trial subscription for other resources expires,

allowing for continued user account management.

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Question: 225

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

Answer Area

One of the benefits of Azure SQL Data Warehouse is that high availability
automatic scaling
data compression
versioning is built into the platform.



Answer:

high availability

Explanation:

Azure Advisor is a personalized cloud consultant that helps optimize Azure deployments by providing best practice recommendations. It analyzes resource configuration and usage telemetry across five distinct categories: Reliability (formerly High Availability), Security, Performance, Cost, and Operational Excellence. The "high availability" (now Reliability) category focuses on recommendations to ensure and improve the continuity of business-critical applications, such as suggesting zone-redundant configurations or enabling backup for virtual machines. All three options presented are valid Advisor categories, but "high availability" correctly completes the sentence as one of its core functions.

References:

1. Microsoft Learn, "Introduction to Azure Advisor." This official documentation outlines the five categories of recommendations. It explicitly states, "Reliability (formerly called High Availability): To ensure and improve the continuity of your business-critical applications."

Source: <https://learn.microsoft.com/en-us/azure/advisor/advisor-overview>, Section: "Recommendations in Advisor".

2. Microsoft Learn, AZ-900 Learning Path, "Describe features and tools in Azure for governance and compliance." This courseware for the AZ-900 exam details the function of Azure Advisor.

Source: <https://learn.microsoft.com/en-us/training/modules/describe-features-tools-azure-for-governance-compliance/4-describe-azure-advisor>, Section: "Advisor recommendations". The text confirms, "The Reliability category was formerly known as High Availability."

Question: 226

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

If a resource group named RG1 has a delete lock,
can delete RG1.

only a member of the global administrators group
the delete lock must be removed before an administrator
an Azure policy must be modified before an administrator
an Azure tag must be added before an administrator

Answer:

the delete lock must be removed before an administrator

Explanation:

An Azure delete lock (CanNotDelete) on a resource group prevents all users from deleting it, regardless of their role-based access control (RBAC) permissions. This includes users with Owner or Global Administrator roles. The lock provides a layer of protection against accidental deletion that supersedes user permissions. To delete the resource group, a user with the appropriate permissions (specifically, the Microsoft.Authorization/locks/* action, which is part of the Owner and User Access Administrator built-in roles) must first explicitly remove the delete lock. Only after the lock is removed can the resource group be deleted.

References:

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Microsoft Learn (Official Azure Documentation):

Document: Lock resources to prevent unexpected changes

Section: "How locks are applied" and "Who can create or delete locks"

Quote/Concept: "Locks apply to all users and roles. ... CanNotDelete means authorized users can still read and modify a resource, but they can't delete the resource. To delete a locked resource, you must first remove the lock. ... To create or delete management locks, you must have access to Microsoft.Authorization/locks/* actions. Of the built-in roles, only Owner and User Access Administrator are granted those actions." This confirms that the lock must be removed first by an authorized user.

Question: 227

HOTSPOT 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
You can nest resource groups.	<input type="radio"/>	<input type="radio"/>
An Azure virtual machine can be in multiple resource groups.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Explanation:

Azure resource groups are flat containers used to manage the lifecycle of related resources for an Azure solution. They cannot be nested within one another.

Furthermore, every Azure resource, including a virtual machine, must exist in one and only one resource group at any given time. While a resource can be moved from one resource group to another, it cannot simultaneously be a member of multiple groups. This single-parent structure is a fundamental principle of Azure Resource Manager (ARM) for consistent management, billing, and access control.

References:

Microsoft Azure Documentation. (n.d.). Azure Resource Manager overview. Microsoft Learn.
Retrieved from

<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/overview>

In the "Resource groups" section, the documentation states, "Every resource must exist in one and only one resource group." and "Resource groups can't be nested." This directly refutes both statements in the question.

Microsoft Azure Documentation. (n.d.). What are Azure resource groups?. Microsoft Learn.
Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/manage-resource-groups-portal#what-are-resource-groups>

Under the "Resource group considerations" heading, it notes: "Resources can only exist in one resource group." This confirms the second statement is false.

Question: 228

HOTSPOT 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
Azure resources can only access other resources in the same resource group.	<input type="radio"/>	<input type="radio"/>
If you delete a resource group, all the resources in the resource group will be deleted.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: No

Statement 2: Yes

Explanation:

Statement 1: Azure resources can only access other resources in the same resource group.

This statement is No. A resource group is a logical container for management, billing, and lifecycle purposes, not a security or access boundary. Azure resources can interact with resources in different resource groups, different subscriptions, or even different Azure Active Directory tenants, provided that appropriate networking, identity, and access control (e.g., Role-Based Access Control - RBAC) configurations are in place. For example, a virtual machine in one resource group can connect to a SQL database in another.

Statement 2: If you delete a resource group, all the resources in the resource group will be deleted.

This statement is Yes. A core feature of Azure Resource Manager is lifecycle management. When you delete a resource group, you are instructing Azure to delete all the resources contained within it. This action is recursive and, by default, will remove all associated components. While certain conditions like resource locks can prevent the deletion of a resource group until the lock is removed, the fundamental behavior of deleting a group is to delete its contents.

References:

Microsoft Corporation. (2024). What is Azure Resource Manager? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/overview>. Supporting evidence for Statement 1: In the "Terminology" section, it is stated, "The resource group stores metadata about the resources... Placing resources in the same resource group is for

logical grouping. It doesn't affect how the resources can interact with each other."

Microsoft Corporation. (2024). Manage Azure resource groups by using the Azure portal.

Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/manage-resource-groups-portal#delete-resource-group>.

Supporting evidence for Statement 2: The section "Delete resource group" explicitly states, "When you delete a resource group, you delete all of the resources in it."

Question: 229

HOTSPOT 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
		If your company uses an Azure free account, you can only deploy Azure virtual machines and Azure storage accounts.	<input type="radio"/>	<input type="radio"/>
		All Azure free accounts expire after a specific period.	<input type="radio"/>	<input type="radio"/>
		You can create up to 10 Azure free accounts by using the same Microsoft account.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: No

Statement 2: Yes

Statement 3: No

Explanation:

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If your company uses an Azure free account, you can only deploy Azure virtual machines and Azure storage accounts. (No) The Azure free account provides access to a wide variety of services, not just virtual machines and storage. It includes a \$200 credit to use on most Azure services for the first 30 days, 12 months of popular free services, and access to over 55 services that are always free up to specified limits.

All Azure free accounts expire after a specific period. (Yes) The promotional benefits of the Azure free account are time-limited. The \$200 credit expires after 30 days, and the access to popular services for free expires after 12 months. After this period, the user must upgrade to a pay-as-you-go subscription to continue using services that are not in the "always free" category. Therefore, the "free account" as a promotional offer expires.

You can create up to 10 Azure free accounts by using the same Microsoft account. (No) The Azure free account offer is strictly limited to one per new customer. This is enforced by verifying a unique credit card, phone number, and email address (Microsoft account). Attempting to create multiple free accounts with the same information is not permitted by the terms of service.

References:

Microsoft Azure Official Documentation. (n.d.). Azure free account FAQ. Microsoft.

Relevant Sections: "What is included in the Azure free account?", "What happens when the 12 months are over?", and "Who is eligible for the Azure free account?".

Content: The documentation explicitly lists the three components of the free offer (credit, 12-month services, always-free services). It confirms the expiration of the credit (30 days) and the popular services (12 months). It also states, "The offer is limited to one Azure free account per new customer and cannot be combined with any other offers".

Question: 230

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

Answer Area

You have an application that is comprised of an Azure web app that has a Service Level Agreement (SLA) of 99.95 percent and an Azure SQL database that has an SLA of 99.99 percent.

The composite SLA for the application is:

- the product of both SLAs, which equals 99.94 percent.
- the lowest SLA associated to the application, which is 99.95 percent.
- the highest SLA associated to the application, which is 99.99 percent.
- the difference between the two SLAs, which is 0.05 percent.

Answer:

The product of both SLAs, which equals 99.94 percent.

Explanation:

The composite Service Level Agreement (SLA) for an application composed of multiple dependent services is calculated by multiplying the SLAs of the individual components. For the system to be available, both the Azure web app and the Azure SQL database must be available. The probability of both independent events occurring is the product of their individual probabilities.

The calculation is as follows: $\text{SLA}_{\text{composite}} = \text{SLA}_{\text{WebApp}} \times \text{SLA}_{\text{SQLDatabase}}$
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 $\text{SLA}_{\text{composite}} = 99.95 \times 0.9995 \times 0.9999 \times 0.9994 = 0.99940005$
 $\text{SLA}_{\text{composite}} \approx 99.94$

This result demonstrates that the composite SLA is always lower than the lowest individual SLA of its constituent components.

References:

Microsoft Azure Documentation: The official Azure Architecture Center documentation explicitly defines how to calculate composite SLAs for applications with multiple services.

Source: Microsoft Learn, Azure Architecture Center, "Composite SLAs".

Reference: In the section "Composite SLAs," the document states, "The composite SLA is calculated by multiplying the individual SLAs... For example, if you have a web app with a 99.95 percent SLA and a database with a 99.99 percent SLA, the composite SLA is: $99.95\% \times 99.99\% = 99.94\%$ ".

Academic Publication on System Reliability: The principle of calculating the total reliability of a system with components in a series (where all must function for the system to function) is a foundational concept in reliability engineering.

Source: Rausand, M., & Hyland, A. (2004). *System Reliability Theory: Models, Statistical Methods, and Applications* (2nd ed.). Wiley.

Reference: Chapter 3, Section 3.2, "Series Structures". This section establishes that for a series system with n independent components, the system reliability, $R_s(t)$, is the product of the individual component reliabilities: $R_s(t) =$

$\prod_{i=1}^n R_i(t)$

n

$R_i(t)$. The SLA is a measure of availability, which is a form of reliability.

DOI: <https://doi.org/10.1002/0471667254>

Question: 231

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

Statements	Yes	No
Availability zones can be implemented in all Azure regions.	<input type="radio"/>	<input type="radio"/>
Only virtual machines that run Windows Server can be created in availability zones.	<input type="radio"/>	<input type="radio"/>
Availability zones are used to replicate data and applications to multiple regions.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: No

Statement 2: No

Statement 3: No

Explanation:

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Availability zones can be implemented in all Azure regions.

- No. Azure Availability Zones are physically separate locations within an Azure region. While the number of regions supporting them is continuously growing, they are not available in all Azure regions. Service availability is dependent on the specific region.

Only virtual machines that run Windows Server can be created in availability zones.

- No. Azure Availability Zones support a wide range of services and operating systems. This includes virtual machines running various distributions of Linux in addition to Windows Server.

Availability zones are used to replicate data and applications to multiple regions.

- No. This statement describes geo-redundancy or cross-region replication. Availability Zones are used for high availability and redundancy within a single Azure region to protect against datacenter-level failures. Replicating across regions is a different disaster recovery strategy.

References:

Microsoft Azure Documentation, "Azure regions and availability zones." This document explicitly lists which regions support Availability Zones, demonstrating they are not universally available. It states, "Regions that support Availability Zones are listed below." which is followed by a specific subset of all Azure regions.

Microsoft Azure Documentation, "What are availability zones?" This page defines Availability Zones as "...unique physical locations within an Azure region," which directly contradicts the claim that they are used for replication to multiple regions. The document contrasts this with regional pairs, which are used for cross-region replication.

Microsoft Azure Documentation, "Create a Linux virtual machine in the Azure portal." This tutorial, along with its Windows counterpart, provides step-by-step instructions for deploying VMs. In the "Basics" tab of the creation process, the "Availability options" dropdown allows selecting an "Availability zone" for both Linux and Windows virtual machines, confirming that support is not exclusive to Windows Server.

Question: 232

HOTSPOT 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
To use Azure Active Directory (Azure AD) credentials to sign in to a computer that runs Windows 10, the computer must be joined to Azure AD.	<input type="radio"/>	<input type="radio"/>
Users in Azure Active Directory (Azure AD) are organized by using resource groups.	<input type="radio"/>	<input type="radio"/>
Azure Active Directory (Azure AD) groups support dynamic membership rules.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

Yes

No

Yes

Explanation:

Statement 1 is TRUE. For a user to sign in to a Windows 10/11 device using their Azure AD account (e.g., user@domain.com), the device must have an identity in Azure AD. This is achieved through Azure AD Join or Hybrid Azure AD Join. This process links the device to the Azure AD tenant, enabling management and single sign-on with Azure AD credentials.

Statement 2 is FALSE. Resource groups are management containers in Azure Resource Manager (ARM) used to group Azure resources like virtual machines, storage, and databases. They are not used to organize identity objects like users or groups within Azure AD. Users in Azure AD are organized within the directory tenant itself and can be managed using security groups, Microsoft 365 groups, or administrative units.

Statement 3 is TRUE. Azure AD groups support both assigned (manual) and dynamic membership. With a dynamic group, administrators can define rules based on user or device attributes (such as department, location, or device OS). Azure AD automatically adds or removes members from the group if their attributes change to match or no longer match the rule, which simplifies group management.

References:

Azure AD Joined Devices:

Microsoft Learn. (2024). Azure AD joined devices. In Azure Active Directory Documentation. Retrieved from

<https://learn.microsoft.com/en-us/azure/active-directory/devices/concept-azure-ad-join>. See the "Overview" section which states, "Azure AD join allows users to sign in to their devices using their work or school Azure AD accounts."

Azure Resource Groups:

Microsoft Learn. (2024). What is Azure Resource Manager?. In Azure Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/overview>.

See the "Terminology" section, which defines a resource group as "A container that holds related resources for an Azure solution." It does not mention Azure AD users as a type of resource for this container.

Dynamic Membership Rules:

Microsoft Learn. (2024). Dynamic membership rules for groups in Azure Active Directory. In Azure Active Directory Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/active-directory/enterprise-users/groups-dynamic-membership>. See the "Overview" section, which states, "You can create attribute-based rules to enable dynamic membership for a group in Azure Active Directory (Azure AD)."

Question: 233

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

Azure Cosmos DB is an example of a offering.

- platform as a service (PaaS)
- infrastructure as a service (IaaS)
- serverless
- software as a service (SaaS)

Answer:

platform as a service (PaaS)

Explanation:

Azure Cosmos DB is a fully managed, globally distributed, multi-model database service. In the cloud computing service model, this falls under Platform as a Service (PaaS). The provider (Microsoft) manages the underlying infrastructure, including servers, networking, storage, operating systems, and the database software itself. The consumer interacts with the service to store and manage data for their applications without needing to manage the platform's foundation. While Cosmos DB offers a serverless consumption model, its fundamental classification as a service type is PaaS, as it provides a complete platform for database operations.

References:

Microsoft Azure Documentation, "What is Platform as a service (PaaS)?", Microsoft Corp. This document categorizes services that allow for the development, testing, and deployment of software applications as PaaS. It explicitly includes "Databases" and "Business analytics" as common PaaS scenarios, which directly applies to Azure Cosmos DB as a managed database service.

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology, U.S. Department of Commerce. On page 2, PaaS is defined as the capability for the consumer to "deploy onto the cloud infrastructure consumer-created or acquired applications... The consumer does not manage or control the underlying cloud infrastructure... but has control over the deployed applications." This definition perfectly describes the user's interaction with Azure Cosmos DB. Available at:

<https://doi.org/10.6028/NIST.SP.800-145>

Armbrust, M., et al. (2010). "A View of Cloud Computing." Communications of the ACM, 53(4),

50-58. In Section 2.1, "Classes of Utility Computing," the authors describe Platform-as-a-Service offerings as providing higher-level abstractions, including database services, which contrasts with IaaS's lower-level resource provisioning. Azure Cosmos DB fits this description of a higher-level, abstracted database platform. <https://doi.org/10.1145/1721654.1721672>

Question: 234

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

Statements	Yes	No
Building a data center infrastructure is an example of operational expenditure (OpEx) costs.	<input type="radio"/>	<input type="radio"/>
Monthly salaries for technical personnel are an example of operational expenditure (OpEx) costs.	<input type="radio"/>	<input type="radio"/>
Leasing software is an example of operational expenditure (OpEx) costs.	<input type="radio"/>	<input type="radio"/>

Answer:

No

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Yes

Yes

Explanation:

Capital Expenditure (CapEx) is the upfront spending on physical infrastructure which will be used over an extended period. Operational Expenditure (OpEx) is the ongoing, recurring cost for services or products as they are consumed.

Building a data center is a significant, one-time investment in a physical asset, which is a classic example of CapEx.

Conversely, monthly salaries and software leases (or subscriptions) are recurring, day-to-day business costs. They are consumed immediately and paid on a regular basis, making them clear examples of OpEx.

References:

- Microsoft Learn. (n.d.). Describe capital expenditure (CapEx) and operational expenditure (OpEx). Microsoft Azure Fundamentals: Describe cloud concepts. Retrieved from Microsoft's official documentation.
- This document explicitly states: "CapEx is an upfront spending of money on physical infrastructure... OpEx is spending on products and services as needed... Examples of OpEx include... employee salaries."
- Brealy, R. A., Myers, S. C., & Allen, F. (2020). Principles of Corporate Finance (13th ed.). McGraw-Hill Education.
- Chapter 6, Section 6.1: This chapter defines investment decisions (CapEx) as acquiring long-lived assets, contrasting them with operational costs (OpEx) like salaries and recurring service payments which are expensed in the period they are incurred.
- Patel, P., Ranabahu, A. H., & Sheth, A. P. (2009). Service Level Agreement in Cloud Computing. In Proceedings of the 2009 IEEE International Conference on Web Services (pp. 1-8).
- Section 2.B: This paper discusses the economic model of cloud computing, highlighting the shift from a CapEx model (buying and building your own hardware/data centers) to an OpEx model (paying a monthly bill for resources, akin to leasing or subscribing).
- <https://doi.org/10.1109/ICWS.2009.110>

Question: 235

This question requires that you evaluate the underlined text to determine if it is correct. An Availability Zone in Azure has physically separate locations across two continents. Instructions: Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

- A. No change is needed.
- B. within a single Azure region
- C. within multiple Azure regions
- D. within a single Azure datacenter

Answer:

B

Explanation:

The original statement is incorrect. Azure Availability Zones are physically separate locations within a single Azure region. Each Availability Zone is composed of one or more datacenters with independent power, cooling, and networking. This design provides high availability and protects applications and data from datacenter-level failures. A single Azure region is a set of datacenters deployed within a latency-defined perimeter and does not span continents; therefore, its constituent Availability Zones are also confined to that single geographic region.

Why Incorrect Options are Wrong:

- A. No change is needed.

The original statement is factually incorrect. Availability Zones are components of a single region, which is located in one geographic area, not across continents.

- C. within multiple Azure regions

This describes a multi-region architecture or region pairs, which is a different concept for disaster recovery. An Availability Zone exists only within one region.

- D. within a single Azure datacenter

This is incorrect because an Availability Zone is made up of one or more datacenters. The purpose is to have separation between datacenters, not within one.

References:

1. Microsoft Learn. (2024). Regions and Availability Zones in Azure. "Core concepts - Azure".

Retrieved from

<https://learn.microsoft.com/en-us/azure/availability-zones/az-overview#availability-zones>.

Section: Availability Zones: "Availability Zones are unique physical locations within an Azure region. Each zone is made up of one or more datacenters equipped with independent power,

cooling, and networking." This directly supports the correct answer (B) and refutes options A and D.

2. Microsoft Learn. (2024). Describe core architectural components of Azure. "Azure Fundamentals: Describe core Azure concepts". Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-core-architectural-components-of-azure/3-describe-regions-availability-zones>.

Section: What are Availability Zones?: "Availability Zones are physically separate datacenters within an Azure region." This statement explicitly confirms that Availability Zones are contained within a single region.

3. Microsoft Azure Documentation. (2023). Azure resiliency. "White papers". Retrieved from <https://azure.microsoft.com/en-us/resources/azure-resiliency/>.

Page 5, Section: Azure Regions: "An Availability Zone is a physically separate location within an Azure region...". This white paper reinforces the hierarchical relationship where zones are subsets of a region, invalidating the idea they could span regions or continents (options A and C).

Question: 236

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

Data that is stored in the Archive access tier of an Azure Storage account

- can be accessed at any time by using azcopy.exe.
- can only be read by using Azure Backup.
- must be restored before the data can be accessed.
- must be rehydrated before the data can be accessed.

Answer:

must be rehydrated before the data can be accessed.

Explanation:

Data in the Azure Archive access tier is stored offline, providing the lowest storage cost but with the highest data retrieval costs and latency. To access a blob in the Archive tier, it must first be moved to an online tier (either Hot or Cool). This process is known as rehydration. Rehydration is an asynchronous operation that can take several hours to complete, depending on the priority specified (Standard or High). Once the blob is rehydrated to an online tier, it can be read or modified.

References:

Microsoft Azure Documentation, "Azure Blob storage access tiers - Hot, Cool, and Archive."

Reference: Under the "Archive tier" section, it states, "To read data in the Archive tier, you must first change the tier of the blob to Hot or Cool. This process is known as rehydration and can take hours to complete."

Microsoft Azure Documentation, "Blob rehydration from the Archive tier."

Reference: The introduction paragraph explicitly states, "While a blob is in the Archive access tier, it's considered offline and can't be read or modified. To read or modify data in an archived blob, you must first rehydrate it to an online tier, either the hot or cool tier."

Question: 237

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

Statements	Yes	No
All the Azure resources deployed to a resource group must use the same Azure region.	<input type="radio"/>	<input type="radio"/>
If you assign a tag to a resource group, all the Azure resources in that resource group are assigned to the same tag.	<input type="radio"/>	<input type="radio"/>
If you assign permissions for a user to manage a resource group, the user can manage all the Azure resources in that resource group.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

A resource group is a logical container, and its own location only determines where the metadata for that group is stored. The resources within the group can be in any Azure region, they do not need to match the resource group's location. This allows for grouping logically related resources that may be distributed geographically for performance or redundancy.

Tags applied at the resource group level are not automatically inherited by the resources within that group. Each resource must be tagged explicitly, either manually or through an Azure Policy, to

have the same tag as its parent resource group.

Azure Role-Based Access Control (RBAC) permissions are inherited down the hierarchy. When you grant a user permissions (e.g., the Contributor role) at the scope of a resource group, those permissions apply to all the resources contained within that group.

References:

Microsoft Azure Documentation (Resource Group Location):

Microsoft Learn. (n.d.). Azure Resource Manager overview. In Azure documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/overview>

Reference Section: Under the "Resource groups" section, the documentation states, "The resource group stores metadata about the resources... The location of the resource group can be different than the location of resources."

Microsoft Azure Documentation (Tag Inheritance):

Microsoft Learn. (n.d.). Use tags to organize your Azure resources and management hierarchy. In Azure documentation. Retrieved from

<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/tag-resources>

Reference Section: Under the "Inheritance" section, it explicitly states, "Tags applied to the resource group are not inherited by the resources in that resource group."

Microsoft Azure Documentation (RBAC Inheritance):

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Microsoft Learn. (n.d.). What is Azure role-based access control (RBAC)?.. In Azure documentation. Retrieved from

<https://learn.microsoft.com/en-us/azure/role-based-access-control/overview>

Reference Section: Under the "Scope" section, the documentation explains, "When you assign a role at a parent scope, those permissions are inherited by the child scopes... If you assign the Contributor role to a user at the resource group scope, they can manage all resources in the resource group."

Question: 238

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

Statements	Yes	No
Each Azure subscription can contain multiple account administrators.	<input type="radio"/>	<input type="radio"/>
Each Azure subscription can be managed by using a Microsoft account only.	<input type="radio"/>	<input type="radio"/>
An Azure resource group contains multiple Azure subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

No

Explanation:

Each Azure subscription can contain multiple account administrators.

- This is incorrect. An Azure subscription is tied to a single Azure account, and each account has only one Account Administrator. This role is the billing owner of the subscriptions within that account. While other administrative roles, such as Co-Administrator or Azure RBAC roles (like Owner), can be assigned to multiple users, the Account Administrator role is unique and singular.

Each Azure subscription can be managed by using a Microsoft account only.

- This is incorrect. Azure subscriptions are managed via identities within a Microsoft Entra ID (formerly Azure Active Directory) tenant. These identities can be work or school accounts (native to Microsoft Entra ID) or personal Microsoft accounts (e.g., outlook.com). Management is not restricted to only one type of account.

An Azure resource group contains multiple Azure subscriptions.

- This is incorrect. The hierarchy is reversed. An Azure subscription is a container for multiple resource groups. A resource group must exist within a single subscription and serves as a logical container for resources (like virtual machines, storage accounts, etc.) that are deployed within that subscription. A resource group cannot contain a subscription.

References:

Microsoft Documentation: "Azure classic subscription administrator roles, Azure RBAC roles, and Microsoft Entra roles".

Reference: Under the "Azure classic subscription administrator roles" section, it explicitly states, "There is one Account Administrator per Azure account." This document details the different administrative roles and their scopes.

Microsoft Documentation: "Azure fundamental concepts".

Reference: In the section "Azure resource hierarchy," the documentation clarifies the structure: Management groups Subscriptions Resource groups Resources. This confirms that resource groups are contained within subscriptions, not the other way around.

Microsoft Learn: "Describe Microsoft Entra ID".

Reference: This module explains that Microsoft Entra ID provides identity services and supports various identity types, including "work or school accounts" and "Microsoft accounts," which can be used to access Azure resources, disproving the claim that only Microsoft accounts can be used.

Question: 239

DRAG DROP Match the Azure Services service to the correct descriptions. Instructions: To answer, drag the appropriate service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point

Services	Answer Area
Azure Active Directory (Azure AD)	
Azure Key Vault	
Azure Lighthouse	
Azure Security Center	
Azure Sentinel	

Answer:

Analyze security log files from Azure virtual machines: Azure Sentinel

Display the secure score for an Azure subscription: Azure Security Center

Store passwords for use by Azure Function applications: Azure Key Vault

Explanation:

Azure Sentinel is Microsoft's cloud-native Security Information and Event Management (SIEM) and Security Orchestration, Automation, and Response (SOAR) solution. Its primary function is to collect and analyze vast amounts of security data and logs from sources like Azure virtual machines to detect, investigate, and respond to threats.

Azure Security Center (now Microsoft Defender for Cloud) is a tool for security posture management. A key feature is the secure score, which assesses your Azure subscriptions against security recommendations and provides a numerical score to help you understand and improve your security posture.

Azure Key Vault is a cloud service designed to securely store and manage secrets, keys, and certificates. It is the appropriate service for an Azure Function application to store passwords or connection strings, avoiding the insecure practice of hardcoding them in the application's source code.

References:

Microsoft Learn Microsoft Sentinel Documentation. "What is Microsoft Sentinel?". This document states, "Microsoft Sentinel is a scalable, cloud-native solution that provides... Security information and event management (SIEM)... Collect data at cloud scale across all users, devices, applications, and infrastructure, both on-premises and in multiple clouds." This confirms its role in analyzing log files from sources like VMs.

Microsoft Learn Microsoft Defender for Cloud Documentation. "Secure score in Microsoft Defender for Cloud." This official documentation explicitly details the function: "Microsoft Defender for Cloud continually assesses your resources, subscriptions, and organization for security issues. It then aggregates all the findings into a single score so that you can tell, at a glance, your current security situation: the higher the score, the lower the identified risk level." This directly links the service to displaying a secure score.

Microsoft Learn Azure Key Vault Documentation. "About Azure Key Vault." The overview states, "Azure Key Vault is a cloud service for securely storing and accessing secrets. A secret is anything that you want to tightly control access to, such as API keys, passwords, certificates, or cryptographic keys." This supports its use for storing passwords for applications like Azure Functions.

Question: 240

Your company has a Software Assurance agreement that includes Microsoft SQL Server licenses. You plan to deploy SQL Server on Azure virtual machines. What should you do to minimize licensing costs for the deployment?

- A. Use Azure reservations.
- B. Use Azure Hybrid Benefit
- C. Deallocate the virtual machines during off hours.
- D. Configure Azure Cost Management budgets.

Answer:

B

Explanation:

Azure Hybrid Benefit is a licensing program specifically designed for customers who have existing on-premises licenses with active Software Assurance (SA). It allows them to use these licenses for workloads running in Azure. For SQL Server on Azure Virtual Machines, applying the Hybrid Benefit means the customer only pays for the base compute infrastructure costs, effectively waiving the cost of the SQL Server license itself on the VM. This directly leverages the company's existing SA agreement to minimize licensing costs for the new cloud deployment, making it the most appropriate and cost-effective solution described.

Why Incorrect Options are Wrong:

- A. Use Azure reservations.

Azure Reservations provide discounts on compute costs (the virtual machine infrastructure) by committing to a term, not on the SQL Server software licensing costs.

- C. Deallocate the virtual machines during off hours.

This strategy reduces compute costs by stopping the VM but does not reduce the hourly rate of the SQL Server license when the VM is running.

- D. Configure Azure Cost Management budgets.

This is a tool for monitoring and alerting on spending. It does not actively reduce costs; it only helps in tracking them against a defined budget.

References:

1. Microsoft Learn, AZ-900: Describe Azure cost management and Service Level Agreements. "Describe Azure Hybrid Benefit" section. This module explicitly states, "The Azure Hybrid Benefit is a licensing benefit that helps you to significantly reduce the costs of running your workloads in the cloud. It works by letting you use your on-premises Software Assurance-enabled Windows Server and SQL Server licenses on Azure."

2. Microsoft Azure Documentation, "Azure Hybrid Benefit for SQL Server on Azure Virtual Machines." Under the "Overview" section, it details, "Azure Hybrid Benefit is a licensing benefit that helps you to bring your on-premises core-based SQL Server licenses with active Software Assurance to Azure." It further clarifies that this benefit applies to SQL Server on Azure VMs.
3. Microsoft Learn, AZ-900: Describe factors that can affect costs in Azure. The "Reservations" section explains that reservations offer discounted prices on certain Azure services for a one- or three-year term, focusing on compute and other resource costs, not bring-your-own-license scenarios.

Question: 241

Which resources can be used as a source for a Network security group inbound security rule?

- A. Application security groups only
- B. IP Addresses only
- C. Service Tags only
- D. IP Addresses, Service tags and Application security groups

Answer:

D

Explanation:

An Azure Network Security Group (NSG) inbound security rule filters network traffic destined for Azure resources. To define the origin of this traffic, the 'source' property of the rule can be configured with several options for maximum flexibility. These options include specific IP addresses or CIDR blocks, pre-defined Service Tags which represent groups of IP prefixes for specific Azure services (e.g., Storage, Sql), and Application Security Groups (ASGs), which allow you to group virtual machines and define network policies based on those logical groupings.

Using all three provides granular control over network access.

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Why Incorrect Options are Wrong:

- A. Incorrect. While Application Security Groups are a valid source, they are not the exclusive option; IP addresses and Service Tags are also permissible sources.
- B. Incorrect. While IP addresses are a valid source, they are not the only option; Service Tags and Application Security Groups can also be used.
- C. Incorrect. While Service Tags are a valid source, they are not the only option; IP addresses and Application Security Groups are also valid sources.

References:

1. Microsoft Learn. (2024). Network security groups. Under the section "Security rules," the documentation states for Source and Destination: "Any, IP Addresses/CIDR block, service tag, or application security group."
2. Microsoft Learn. (2023). AZ-900: Describe core Azure concepts - Describe Azure network security groups. In the section "How do network security groups work?", the text specifies that a rule's source and destination "Can be an IP address, a CIDR block, a service tag, or an application security group."
3. Microsoft Learn. (2024). Virtual network service tags. Under the section "Service tags for network security groups," it explicitly states, "You can use service tags in your network security group inbound and outbound rules."

Question: 242

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

Statements	Yes	No
Azure China is operated by Microsoft.	<input type="radio"/>	<input type="radio"/>
Azure Government is operated by Microsoft.	<input type="radio"/>	<input type="radio"/>
Azure Government is available only to US government agencies and their partners.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

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Yes

Explanation:

Azure China is a sovereign cloud service that is physically isolated within mainland China. To comply with Chinese regulations, it is operated by a local partner, Shanghai Blue Cloud Technology Co., Ltd. (21Vianet), not directly by Microsoft. Microsoft provides the technology, but 21Vianet operates the datacenters.

Conversely, Azure Government is a sovereign cloud for the United States, which is directly operated by Microsoft. The services are managed by screened U.S. personnel. Its use is restricted to eligible U.S. government entities (federal, state, local, tribal) and their partners who handle controlled data, ensuring compliance with strict government security and compliance requirements.

References:

Microsoft Azure Documentation. "Azure in China." This document explicitly states, "Microsoft Azure operated by 21Vianet (Azure China) is a physically separated instance of cloud services located in China. It's independently operated and transacted by Shanghai Blue Cloud Technology

Co., Ltd. ('21Vianet')."

Microsoft Azure Documentation. "What is Azure Government?" This resource clarifies, "Azure Government is a mission-critical cloud, operated by screened US persons..." and details its physical and network isolation from non-US government deployments.

Microsoft Learn. "Compare Azure Government and global Azure." Under the "Who can use Azure Government?" section, it specifies, "Azure Government is available to U.S. government (federal, state, and local) entities, and their partners who hold and process controlled data."

Question: 243

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

An Azure Policy initiative is a

collection of policy definitions
collection of Azure Policy definition assignments
group of Azure Blueprints definitions
group of role-based access control (RBAC) role assignments

Answer:

collection of policy definitions

Explanation:

An Azure Policy initiative is a collection of policy definitions that are grouped together to help achieve a single, overarching goal. This approach simplifies the management of policies by allowing a set of related policies to be managed and assigned as a single item. For example, an organization might create a security initiative that includes multiple policy definitions, such as enforcing encryption, requiring specific network configurations, and auditing resource tags. This initiative can then be assigned to a subscription or management group to enforce all the contained policies at once.

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References:

Microsoft Azure Documentation, "Overview of Azure Policy":

Section: What is Azure Policy? Initiative definition

Content: "An initiative definition is a collection of policy definitions that are tailored towards achieving a singular overarching goal... For example, you could create an initiative with a goal to monitor your organization's compliance with the PCI DSS standard."

Microsoft Azure Documentation, "Azure Policy initiative definition structure":

Section: Initiative definition

Content: "An initiative definition is used to group several policy definitions to simplify assignments and management because you work with a group as a single item."

Question: 244

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

Azure Site Recovery provides

▼
fault tolerance
disaster recovery
elasticity
high availability

for virtual machines.

Answer:

disaster recovery

Explanation:

Azure Site Recovery is a native Disaster Recovery as a Service (DRaaS) offering. Its core purpose is to ensure business continuity by replicating workloads from a primary site to a secondary location. In the event of a disaster or major outage at the primary site, an organization can fail over to the secondary location to quickly resume operations.

While high availability and fault tolerance focus on preventing downtime from component failures within a single location (e.g., using redundant hardware or availability zones), disaster recovery specifically addresses site-level failures. Elasticity refers to the ability to scale resources up or down, which is a different cloud capability.

References:

Microsoft Corporation. "About Site Recovery." Microsoft Learn. Accessed September 11, 2025.
Reference Details: In the "Overview" section, the document states, "Azure Site Recovery helps ensure business continuity by keeping business apps and workloads running during outages. Site Recovery replicates workloads running on physical and virtual machines (VMs) from a primary site to a secondary location. When an outage occurs at your primary site, you fail over to secondary location, and access apps from there." This directly defines the service's role as a disaster recovery solution.

Microsoft Corporation. "High availability and disaster recovery for IaaS apps." Microsoft Learn. Accessed September 11, 2025.

Reference Details: This documentation explicitly distinguishes the concepts. It describes High Availability as measures taken within a region (e.g., Availability Sets, Availability Zones) to handle localized hardware failures, while describing Disaster Recovery as the process of "recovering from a catastrophic loss" by failing over to a different geographic region, which is the primary use case for Azure Site Recovery.

Question: 245

To which cloud models can you deploy physical servers?

- A. private cloud and hybrid cloud only
- B. private cloud only
- C. private cloud, hybrid cloud and public cloud
- D. hybrid cloud only

Answer:

A

Explanation:

A private cloud is a cloud computing environment dedicated to a single organization. When hosted on-premises, the organization is responsible for purchasing, deploying, and managing its own physical servers and infrastructure. A hybrid cloud combines a private cloud with a public cloud. Consequently, an organization can deploy physical servers within the private cloud component of its hybrid cloud architecture. In a public cloud model, the cloud provider owns and manages all physical hardware; customers provision virtual resources on the provider's infrastructure and do not deploy their own physical servers.

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Why Incorrect Options are Wrong:

- B. private cloud only: This is incorrect because a hybrid cloud, by definition, includes a private cloud component where an organization can deploy its physical servers.
- C. private cloud, hybrid cloud and public cloud: This is incorrect because in a public cloud model, the cloud provider owns and manages the physical infrastructure. Customers cannot deploy their own physical servers into a public cloud provider's datacenter.
- D. hybrid cloud only: This is incorrect because a standalone private cloud is a common model where an organization deploys and manages its own physical servers.

References:

1. Microsoft Learn. "Describe cloud service types." AZ-900: Describe cloud concepts. Microsoft, n.d. In the section "What is a private cloud?", it states, "A private cloud may be hosted from your on-site datacenter. It can also be hosted by a third-party service provider." An on-site datacenter explicitly involves deploying physical servers. In the section "What is a public cloud?", it clarifies, "...you have no local hardware to manage or keep up-to-date; everything runs on your cloud provider's hardware."
 2. Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.
- Section: 3. Deployment Models, Private cloud: "The cloud infrastructure is provisioned for

exclusive use by a single organization... It may be owned, managed, and operated by the organization... and it may exist on or off premises." The on-premises model requires the organization to deploy physical servers.

Section: 3. Deployment Models, Hybrid cloud: "The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public)..." This confirms a hybrid cloud contains a private component.

Question: 246

In which type of cloud model are all the hardware resources owned by a third-party and shared between multiple tenants?

- A. private
- B. hybrid
- C. public

Answer:

C

Explanation:

A public cloud is a deployment model where a third-party provider owns and operates all hardware resources, such as servers and storage, and delivers them over the internet. These resources are provisioned in a multi-tenant environment, meaning they are shared among multiple, distinct organizations or "tenants." This model offers economies of scale and a pay-as-you-go pricing structure, as customers only pay for the resources they consume. The defining characteristics are third-party ownership and shared infrastructure.

Why Incorrect Options are Wrong:

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- A. private: In a private cloud, computing resources are used exclusively by a single business or organization and are not shared with other tenants.
- B. hybrid: A hybrid cloud is a combination of public and private clouds, not a distinct model solely defined by shared, third-party-owned hardware.

References:

1. Microsoft Learn. (2024). Describe the different types of cloud models. In "AZ-900: Describe cloud concepts". "The public cloud is defined as computing services offered by third-party providers over the public Internet, making them available to anyone who wants to use or purchase them. They may be free or sold on-demand, allowing customers to pay only per usage for the CPU cycles, storage, or bandwidth they consume. ... In a public cloud, you share the same hardware, storage, and network devices with other organizations or cloud "tenants.""
Source: Microsoft Learn, Module "Describe cloud concepts", Unit "Describe the different types of cloud models".
2. Microsoft Learn. (2024). What is a Private Cloud?. Microsoft Azure Documentation. "A private cloud consists of computing resources used exclusively by one business or organization. In a private cloud, the services and infrastructure are always maintained on a private network, and the hardware and software are dedicated solely to your organization."
Source: Microsoft Azure, "Cloud computing concepts" section.

3. Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

Section: "3. Deployment Models", Page 3. "Public cloud. The cloud infrastructure is provisioned for open use by the general public. It may be owned, managed, and operated by a business, academic, or government organization, or some combination of them. It exists on the premises of the cloud provider."

Question: 247

DRAG DROP Match the cloud model to the correct advantage. Instructions: To answer, drag the appropriate cloud model from the column on the left to its advantage on the right. Each cloud model may be used once, more than once, or not at all. NOTE: Each correct match is worth one point

Cloud model	Work Area
Hybrid Cloud	No required capital expenditure.
Private Cloud	Provides complete control over security.
Public Cloud	Provides a choice to use on-premises or cloud-based resources.

Answer:

No required capital expenditure: Public Cloud

Provides complete control over security: Private Cloud

Provides a choice to use on-premises or cloud-based resources: Hybrid Cloud

Explanation:

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The correct pairings are based on the fundamental characteristics of each cloud deployment model.

- Public Cloud: Resources are owned and operated by a third-party provider and delivered over the internet. This model eliminates capital expenditure (CapEx) for purchasing hardware and shifts costs to an operational expenditure (OpEx) model, where you pay only for what you consume.
- Private Cloud: The computing infrastructure is dedicated to a single organization. Because the organization manages and controls the entire environment, it can implement and maintain its own specific security policies, offering a high degree of control.
- Hybrid Cloud: This model integrates a private cloud (or on-premises infrastructure) with a public cloud. This combination allows organizations the flexibility to place workloads in the most appropriate environment, giving them a choice between using their own resources or cloud-based resources.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

Public Cloud (Section 2): "The cloud infrastructure is provisioned for open use by the general public... It is owned, managed, and operated by a business, academic, or government organization, or some combination of them." This provider-owned model is the basis for eliminating customer capital expenditure.

Private Cloud (Section 2): "The cloud infrastructure is provisioned for exclusive use by a single organization... It may be owned, managed, and operated by the organization, a third party, or some combination of them..." This exclusivity provides the foundation for complete control over security.

Hybrid Cloud (Section 2): "The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public)..." This composition is what provides the choice of using on-premises or cloud resources.

DOI: <https://doi.org/10.6028/NIST.SP.800-145>

Microsoft Azure Documentation. What are public, private, and hybrid clouds?

Public Cloud: "With a public cloud, you don't have to purchase any hardware or software... you trade capital expenses for operational expenses."

Private Cloud: "...services and infrastructure are maintained on a private network...This single-tenant environment means that the hardware... and software are dedicated solely to your organization. A private cloud offers the highest levels of control and security."

Hybrid Cloud: "Hybrid clouds combine on-premises infrastructure-or a private cloud-with a public cloud. Hybrid clouds allow data and apps to move between the two environments."

Question: 248

What can you use to automatically send an alert if an administrator stops an Azure virtual machine?

- A. Azure Advisor
- B. Azure Service Health
- C. Azure Monitor
- D. Azure Network Watcher

Answer:

C

Explanation:

Azure Monitor is the comprehensive solution for collecting, analyzing, and acting on telemetry from your Azure and on-premises environments. It includes the Azure Activity Log, which records all subscription-level events, such as an administrator stopping a virtual machine (the 'Deallocate Virtual Machine' operation). You can create alert rules in Azure Monitor that are triggered by specific Activity Log events. This allows you to automatically send a notification or take an automated action when a VM is stopped by an administrator.

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Why Incorrect Options are Wrong:

- A. Azure Advisor: This service provides recommendations to optimize Azure resources for cost, security, and performance. It does not provide real-time event monitoring or alerting for administrative actions.
- B. Azure Service Health: This service monitors the health of the Azure platform and services, not the state of your individual resources or administrative actions performed on them.
- D. Azure Network Watcher: This is a suite of tools for monitoring and diagnosing network-related issues within your Azure virtual networks. It does not monitor the operational state of virtual machines.

References:

1. Microsoft Learn. "Overview of Azure Monitor." Azure Monitor Documentation. This document states, "Azure Monitor helps you maximize the availability and performance of your applications and services. It delivers a comprehensive solution for collecting, analyzing, and acting on telemetry..." and lists "Respond to critical situations with alerts."
2. Microsoft Learn. "Create, view, and manage activity log alerts by using Azure Monitor." Azure Monitor Documentation. This guide details the process: "Activity log alerts are alerts that activate when a new activity log event occurs that matches the conditions specified in the alert... For example, you can receive an alert when a user deletes a virtual machine in your subscription."

The action of stopping a VM is a similar administrative event.

3. Microsoft Learn. "Introduction to Azure Advisor." Azure Advisor Documentation. This source clarifies Advisor's role: "Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments."

4. Microsoft Learn. "What is Azure Service Health?" Azure Service Health Documentation. This document explains, "Azure Service Health is a suite of experiences that provide personalized guidance and support when issues with Azure services affect you."

Question: 249

You have an Azure environment. You need to create a new Azure virtual machine from a tablet that runs the Android operating system. What are three possible solutions? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. Use Bash in Azure Cloud Shell.
- B. Use PowerShell in Azure Cloud Shell.
- C. Use the PowerApps portal.
- D. Use the Security & Compliance admin center.
- E. Use the Azure portal.

Answer:

A, B, E

Explanation:

The requirement is to create an Azure virtual machine from an Android tablet. This necessitates using tools that are accessible through a web browser or a dedicated mobile application.

1. Azure portal (E): A web-based, unified console that provides a graphical user interface (GUI) to provision and manage Azure resources. It is accessible from any modern web browser, including those on an Android tablet.
2. Azure Cloud Shell (A, B): An interactive, authenticated, browser-accessible shell for managing Azure resources. It provides the flexibility of choosing between Bash (with the Azure CLI) and PowerShell, both of which can be used to create virtual machines via command-line instructions. Since Cloud Shell runs in a browser, it is fully functional on an Android tablet.

Why Incorrect Options are Wrong:

- C. Use the PowerApps portal.

The PowerApps portal is used for creating and managing low-code business applications, not for direct Azure infrastructure deployment like creating a VM.

- D. Use the Security & Compliance admin center.

This is a Microsoft 365 portal for managing security and compliance features; it cannot be used to create or manage Azure infrastructure resources.

References:

1. Azure portal: Microsoft Learn. (2023). What is the Azure portal? "The Azure portal is a web-based, unified console that provides an alternative to command-line tools... You can manage your Azure subscription using a graphical user interface. ... You can access the portal from any modern browser on any device."

Source: Microsoft Learn, "Describe the core architectural components of Azure," Module: "Describe Azure management and governance," Unit: "What is the Azure portal?"

2. Azure Cloud Shell (Bash & PowerShell): Microsoft Learn. (2023). Overview of Azure Cloud Shell. "Azure Cloud Shell is an interactive, authenticated, browser-accessible shell for managing Azure resources. It provides the flexibility of choosing the shell experience that best suits the way you work, either Bash or PowerShell."

Source: Microsoft Learn, "Azure Cloud Shell overview."

3. Creating a VM with Azure Tools: Microsoft Learn. (2023). Create a Windows virtual machine in Azure. This document details the methods for creating a VM using the Azure portal, Azure PowerShell, and Azure CLI, confirming all three are valid management tools for this task.

Source: Microsoft Learn, "Quickstart: Create a Windows virtual machine in the Azure portal." (This page also links to the PowerShell and CLI quickstarts).

Question: 250

You plan to deploy several Azure virtual machines. You need to ensure that the services running on the virtual machines are available if a single data center fails. Solution: You deploy the virtual machines to a scale set. Does this meet the goal?

- A. Yes
- B. No

Answer:

B

Explanation:

A Virtual Machine Scale Set (VMSS) is a compute resource used to deploy and manage a set of identical virtual machines. While a VMSS can be configured to provide high availability across data centers by distributing instances across multiple Availability Zones, this is not its default or only configuration. A scale set can also be deployed within a single Availability Zone. If the scale set is deployed to a single zone and that zone (representing one or more data centers) fails, the entire application becomes unavailable. Therefore, simply deploying to a scale set is insufficient to meet the goal; it must be explicitly configured to be zone-redundant.

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Why Incorrect Options are Wrong:

A. Yes: This is incorrect because the solution is incomplete. Deploying to a scale set does not automatically guarantee protection against a data center failure unless it is specifically configured to span multiple Availability Zones.

References:

1. Microsoft Learn. (2023). What are Virtual Machine Scale Sets? - In the "High availability and scale sets" section, it states, "To provide high availability, you can use Availability Zones to automatically distribute VM instances in a scale set... across multiple datacenters." This highlights that using Availability Zones is a specific configuration for achieving this goal.
2. Microsoft Learn. (2023). Regions and Availability Zones in Azure. - The "Availability Zones" section defines them as "unique physical locations within an Azure region" designed to protect applications and data from datacenter failures. This establishes the correct mechanism for meeting the requirement.
3. Microsoft Learn. (2023). Create a Virtual Machine Scale Set that uses Availability Zones. - The document's overview explicitly states, "To protect your virtual machine scale sets from datacenter-level failures, you can create a scale set across Availability Zones." This confirms that creating a scale set alone is not enough; it must be configured to use zones.
4. Microsoft Learn. (2024). AZ-900: Describe core Azure architectural components. - The module

on "Describe Azure regions, availability zones, and region pairs" explains that Availability Zones are the feature used to ensure services remain available during datacenter failures.

Question: 251

Your company is planning a deployment using Azure Database for PostgreSQL. The deployment should meet the following requirements: - Up to 10 TB storage - Azure Premium Storage - Point-in-time-restore for up to 35 days You need to select the appropriate deployment and pricing tier to meet these requirements and minimize costs. What should you select?

- A. Azure Database for PostgreSQL Single Server Memory Optimized tier
- B. Azure Database for PostgreSQL Hyperscale (Citus)
- C. Azure Database for PostgreSQL Single Server General Purpose tier
- D. Azure Database for PostgreSQL Single Server Basic tier

Answer:

C

Explanation:

The General Purpose tier for Azure Database for PostgreSQL - Single Server is the most appropriate and cost-effective choice. It meets all specified requirements: it supports storage up to 16 TB (exceeding the 10 TB need), utilizes high-performance storage, and allows for a point-in-time restore backup retention period of up to 35 days. Compared to the Memory Optimized tier, it offers a balanced compute and memory configuration at a lower cost, which aligns with the goal of cost minimization since no memory-intensive workload was specified. The Hyperscale (Citus) option is designed for larger, distributed workloads and would be significantly more expensive.

Why Incorrect Options are Wrong:

- A. Azure Database for PostgreSQL Single Server Memory Optimized tier: This tier meets the technical requirements but is more expensive than the General Purpose tier and is designed for memory-intensive workloads, which were not specified.
- B. Azure Database for PostgreSQL Hyperscale (Citus): This is a scale-out deployment option for massively parallel workloads, making it unnecessarily complex and more costly for the specified 10 TB requirement.
- D. Azure Database for PostgreSQL Single Server Basic tier: This tier does not meet the storage requirement, as it is limited to a maximum of 1 TB of storage.

References:

1. Microsoft Documentation, "Pricing tiers in Azure Database for PostgreSQL - Single Server": This document outlines the specifications for each tier.
Section: "Basic pricing tier": "Max Storage: 1 TB". This confirms why option D is incorrect.
Section: "General Purpose and Memory Optimized pricing tiers": "Max Storage: 16 TB". This

confirms that both General Purpose and Memory Optimized tiers meet the storage requirement. It also describes General Purpose as suitable for "most business workloads" and Memory Optimized for "high-performance database workloads," indicating a cost and performance difference.

2. Microsoft Documentation, "Backup and restore in Azure Database for PostgreSQL - Single Server": This document details the backup capabilities.

Section: "Backup retention": "Backups are retained for a period you specify, between 7 and 35 days. The default retention period is seven days. You can set the retention period... for all tiers (Basic, General Purpose, and Memory Optimized)." This confirms all single-server tiers meet the 35-day restore requirement.

3. Microsoft Documentation, "What is Azure Database for PostgreSQL?": This document describes the different deployment options.

Section: "Azure Database for PostgreSQL - Hyperscale (Citus)": Describes this option as one that "horizontally scales queries across multiple machines using sharding," which is intended for workloads approaching or exceeding 100 GB of data, indicating it is for larger-scale needs than Single Server. This supports why option B is not the most cost-effective choice.

Question: 252

Your company uses management groups to manage resources in your Azure tenant more efficiently. User1 should be able to assign access and assign policies to management groups. You need to determine to which role-based access control (RBAC) role User1 should be added. Your solution should follow the principle of least privilege. To which role should you add User1?

- A. Owner
- B. User Access Administrator
- C. Management Group Contributor
- D. Contributor

Answer:

B

Explanation:

The User Access Administrator role is the most appropriate choice as it adheres to the principle of least privilege. This role grants permissions to manage user access and policy assignments for resources within the scope it is assigned. Specifically, it includes the Microsoft.Authorization/ permission, which allows a user to create and manage both role assignments ("assign access") and policy assignments. It does not grant broad permissions to create, modify, or delete the resources themselves, unlike the Owner or Contributor roles. This provides the exact capabilities required by User1 without granting unnecessary privileges.

Why Incorrect Options are Wrong:

- A. Owner: This role violates the principle of least privilege by granting full control over all resources and their access, which is more than the required permissions.
- C. Management Group Contributor: This role allows for managing management groups and subscriptions but crucially lacks the permission to assign access (manage role assignments) to other users.
- D. Contributor: This role can manage resources but cannot assign access to other users or groups, failing to meet a primary requirement of the task.

References:

1. Microsoft Learn. (2023). Azure built-in roles.

Section: "User Access Administrator"

Content: "Lets you manage user access to Azure resources." The role's permissions include Microsoft.Authorization/, which covers both role assignments and policy assignments.

Section: "Owner" and "Contributor"

Content: The documentation explicitly states that the Contributor role "does not allow you to assign roles in Azure RBAC," while the Owner role has "full access to manage all resources," making it overly permissive.

2. Microsoft Learn. (2023). What are Azure management groups?

Section: "Azure custom RBAC roles for management groups"

Content: This document explains how RBAC roles, including built-in ones like User Access Administrator, can be applied at the management group scope to control access and policy for all subscriptions within that group.

3. Microsoft Learn. (2023). Best practices for Azure RBAC.

Section: "Only grant the access users need"

Content: This section details the principle of least privilege, stating, "It's a best practice to grant users the least privilege to get their work done. Avoid assigning broader roles at broader scopes even if it initially seems more convenient." This supports selecting User Access Administrator over Owner.

Question: 253

A team has an Azure Cosmos DB account. A solution needs to be in place to generate an alert from Azure Log Analytics when a query request charge exceeds 40 units more than 10 times during a 10- minute window. Which of the following would you recommend? (Choose two)

- A. Create a search query to identify when the requestCharges exceeds 10.
- B. Configure a period of 10 and a frequency of 10.
- C. Create a search query to identify when the requestCharges exceeds
- D. Create a search query to identify when the durations exceeds 10.

Answer:

B, C

Explanation:

To meet the requirement, you must create a log alert rule in Azure Monitor. This process involves two key configurations. First, you need a Kusto Query Language (KQL) search query to filter the diagnostic logs for the specific condition. The requirement is to identify when the "request charge exceeds 40 units," which translates to a query where requestCharges > 40. Second, you must configure the alert logic's time parameters. The "10-minute window" directly corresponds to the Period setting in the alert rule. Setting both the Period and Frequency to 10 minutes ensures the query evaluates the last 10 minutes of data every 10 minutes, which is the standard configuration for this type of windowed alert.

Why Incorrect Options are Wrong:

- A. The specified request charge threshold in the requirement is 40, not 10.
- D. The alert condition is based on the request charge (requestCharges), not the query execution time (durations).

References:

1. Microsoft Learn, Azure Cosmos DB Documentation. "Monitor Azure Cosmos DB data by using diagnostic settings in Azure". This document details the fields available in Azure Cosmos DB diagnostic logs, confirming that requestCharge represents the Request Units (RUs) consumed. The query must filter on this value.
2. Microsoft Learn, Azure Monitor Documentation. "Create or edit an alert rule". In the "Configure alert logic" section, it explains the Period and Frequency settings. Period is defined as "The time range over which to evaluate the collected data," which corresponds to the "10-minute window" in the question.
3. Microsoft Learn, Azure Monitor Documentation. "Log alerts in Azure Monitor". This article describes the components of a log alert rule, including the "Condition," which consists of the log

query and the measurement settings (e.g., period, frequency, threshold). This confirms that both a correct query and time configuration are necessary.

Question: 254

Which service provides network traffic filtering across multiple Azure subscriptions and virtual networks?

- A. Azure Firewall
- B. an application security group
- C. Azure DDoS protection
- D. a network security group (NSG)

Answer:

A

Explanation:

Azure Firewall is a managed, cloud-based network security service designed to protect Azure Virtual Network resources. A key feature is its ability to provide centralized network traffic filtering and policy enforcement. It can be deployed in a central virtual network (a hub-and-spoke model) to govern and log traffic for spoke virtual networks, which can reside in the same or different subscriptions. This centralized control model directly addresses the requirement of filtering traffic across multiple subscriptions and virtual networks, making it the correct service for this scenario.

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Why Incorrect Options are Wrong:

- B. an application security group: Application security groups (ASGs) are used to group VMs within a single virtual network to simplify rule creation in a Network Security Group (NSG); they do not operate across V-Nets.
- C. Azure DDoS protection: This service is specifically designed to mitigate Distributed Denial of Service (DDoS) attacks, not for general, user-defined network traffic filtering based on custom rules.
- D. a network security group (NSG): An NSG provides traffic filtering for resources within a single virtual network. It cannot be applied centrally to filter traffic across multiple virtual networks or subscriptions.

References:

1. Microsoft Azure Documentation. "What is Azure Firewall?" Microsoft Learn. "You can create, enforce, and log application and network connectivity policies across subscriptions and virtual networks." This statement directly confirms that Azure Firewall is designed for this purpose.
Source: <https://learn.microsoft.com/en-us/azure/firewall/introduction>, Introduction section, Paragraph 2.
2. Microsoft Azure Documentation. "Azure Firewall Manager." Microsoft Learn. "Azure Firewall Manager is a security management service that provides central security policy and route

management for cloud-based security perimeters." This highlights its role in centralized management across different network topologies.

Source: <https://learn.microsoft.com/en-us/azure/firewall-manager/overview>, Introduction section, Paragraph 1.

3. Microsoft Azure Documentation. "Network security groups." Microsoft Learn. "You can associate a network security group to, or disassociate a network security group from: Network interface... Subnet..." This shows an NSG's scope is limited to components within a single virtual network.

Source: <https://learn.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview>, "Associate a network security group" section.

4. Microsoft Azure Documentation. "Application security groups." Microsoft Learn. "All network interfaces assigned to an application security group must exist in the same virtual network that the first network interface assigned to the application security group is in." This confirms ASGs are scoped to a single VNet.

Source: <https://learn.microsoft.com/en-us/azure/virtual-network/application-security-groups>, "Application security groups" section, Constraints paragraph.

Question: 255

A company is planning on deploying a stateless based application based on microservices using the Azure Service Fabric service. You need to design the infrastructure that would be required in the Azure Service Fabric service. Which of the following should you consider? (Choose two)

- A. The network connectivity
- B. The number of node types in the cluster
- C. The properties for each node type
- D. The service tier

Answer:

B, C

Explanation:

When designing the infrastructure for an Azure Service Fabric cluster, two fundamental considerations are the node types and their specific properties. A node type maps to an underlying Virtual Machine Scale Set. You must decide on the number of node types required (e.g., one for front-end services and another for back-end services). For each node type, you must then define its properties, which include the VM size (SKU), the number of instances (nodes), the durability tier, and the reliability tier. These choices directly determine the cluster's capacity, performance, and fault tolerance.

Why Incorrect Options are Wrong:

- A. The network connectivity is a general Azure infrastructure consideration, not a specific design choice within the Service Fabric cluster itself.
- D. Azure Service Fabric does not have a "service tier" in the same way as services like Azure SQL Database. It uses reliability and durability tiers for its node types.

References:

1. Microsoft Azure Documentation, "Service Fabric cluster capacity planning considerations." This document explicitly states, "A key part of planning for any Service Fabric production deployment is cluster capacity planning. Key considerations include... The number of node types and their properties." It further details that properties include durability, reliability, and VM SKU.
Source: learn.microsoft.com/en-us/azure/service-fabric/service-fabric-cluster-capacity-planning, Section: "Key capacity planning considerations".
2. Microsoft Azure Documentation, "Azure Service Fabric node types and virtual machine scale sets." This page clarifies the relationship between node types and the underlying infrastructure. It states, "Each node type that is defined in a Service Fabric cluster is set up as a separate virtual machine scale set... For each node type, you can independently scale it up or down... and have

different capacity metrics." This confirms that defining the number of node types (B) and their properties (C) are core design tasks.

Source: learn.microsoft.com/en-us/azure/service-fabric/service-fabric-cluster-nodetypes, Section: "Node types and virtual machine scale sets".

Question: 256

What should you use to evaluate whether your company's Azure environment meets regulatory requirements?

- A. Microsoft Defender for Cloud
- B. Azure Advisor
- C. Azure Service Health
- D. Azure Knowledge Center

Answer:

A

Explanation:

Microsoft Defender for Cloud is the correct tool for this task. It includes a feature specifically designed for regulatory compliance. The regulatory compliance dashboard in Defender for Cloud provides insights into your compliance posture against a wide range of standards and regulations, such as ISO 27001, PCI DSS, and SOC TSP. It continuously assesses your hybrid cloud environment to identify misconfigurations relative to these standards and provides recommendations to remediate them, thereby helping you evaluate and improve your compliance.

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Why Incorrect Options are Wrong:

- B. Azure Advisor: This service provides recommendations for optimizing Azure resources across cost, security, reliability, performance, and operational excellence, but it does not perform formal audits against specific regulatory standards.
- C. Azure Service Health: This service provides information about the health of the Azure platform and services, including outages and planned maintenance. It does not evaluate the customer's environment.
- D. Azure Knowledge Center: This is not a specific Azure service. It is a general term for documentation and support resources, not an automated tool for evaluating compliance.

References:

1. Microsoft Learn. "Tutorial: Improve your regulatory compliance." Microsoft Docs, Microsoft. Accessed May 22, 2024.
Reference Details: The article explicitly states, "To help you with this process, Microsoft Defender for Cloud offers a regulatory compliance dashboard... The dashboard shows the status of all the assessments within your environment, for a selected standard or regulation." This directly supports using Defender for Cloud for regulatory evaluation.
2. Microsoft Learn. "What is Microsoft Defender for Cloud?." Microsoft Docs, Microsoft. Accessed May 22, 2024.

Reference Details: Under the "Cloud security posture management (CSPM)" section, it lists "Regulatory compliance" as a key capability, describing how it "continuously assesses, and protects workloads against standards."

3. Microsoft Learn. "Introduction to Azure Advisor." Microsoft Docs, Microsoft. Accessed May 22, 2024.

Reference Details: This document defines Azure Advisor as a "personalized cloud consultant" that provides recommendations in five categories. It does not mention assessing against specific regulatory frameworks like PCI DSS or ISO 27001.

4. Microsoft Learn. "What is Azure Service Health?." Microsoft Docs, Microsoft. Accessed May 22, 2024.

Reference Details: This page clarifies that Azure Service Health "notifies you about Azure service incidents, planned maintenance, and health advisories," confirming its purpose is unrelated to customer compliance evaluation.

Question: 257

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

Statements	Yes	No
The Microsoft Service Trust Portal can be accessed by using a Microsoft cloud services account.	<input type="radio"/>	<input type="radio"/>
Compliance Manager can be used to track your company's regulatory compliance activities related to Microsoft cloud services.	<input type="radio"/>	<input type="radio"/>
The My Library feature can be used to save Microsoft Service Trust Portal documents and resources in a single location.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

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All three statements are correct. The Microsoft Service Trust Portal requires authentication with a Microsoft cloud services account, such as an Azure Active Directory or Microsoft 365 account, to access its compliance reports and trust documents. The Microsoft Purview Compliance Manager is a specific tool designed to help organizations manage and track their compliance activities against various regulations and standards. Within the Service Trust Portal, the My Library feature allows users to save frequently accessed documents for easy retrieval, creating a personalized repository.

References:

Microsoft Learn. "Get started with Microsoft Service Trust Portal." Microsoft Docs, Accessed September 11, 2025. In the "Accessing the Service Trust Portal" section, it states, "To access some of the resources on the Service Trust Portal, you must sign in as an authenticated user with your Microsoft cloud services account (Azure Active Directory organization account)." The article also describes the My Library feature, stating, "The My Library feature lets you add documents and resources to your My Library page."

Microsoft Learn. "Microsoft Purview Compliance Manager." Microsoft Docs, Accessed September 11, 2025. In the overview section, it states, "Microsoft Purview Compliance Manager is a feature in the Microsoft Purview compliance portal that helps you manage your organization's compliance requirements with greater ease and convenience." This confirms its purpose is to track regulatory

compliance activities.

Question: 258

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

Statements	Yes	No
You can associate a network security group (NSG) to a virtual network subnet.	<input type="radio"/>	<input type="radio"/>
You can associate a network security group (NSG) to a virtual network.	<input type="radio"/>	<input type="radio"/>
You can associate a network security group (NSG) to a network interface.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

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A Network Security Group (NSG) in Azure is used to filter network traffic to and from Azure resources within a virtual network. An NSG can be associated with two types of resources:

- Subnets: When associated with a subnet, the NSG rules apply to all resources within that subnet.
- Network Interfaces (NICs): When associated with a network interface attached to a virtual machine, the rules apply only to that specific VM.

An NSG cannot be associated directly with an entire virtual network (VNet). Instead, the association must be made at the more granular level of a subnet or an individual network interface within that VNet.

References:

Microsoft Azure Documentation, "Network security groups." In the "How to associate a network security group" section, it states: "You can associate a network security group to network interfaces and subnets." The document does not list virtual networks as a resource to which an NSG can be directly associated.

Microsoft Azure Documentation, "Filter network traffic with a network security group using the

Azure portal." Under "Associate network security group to subnet," it provides steps for association and states: "You can associate a network security group to a network interface in a virtual machine or a subnet in a virtual network."

Question: 259

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

After you create a virtual machine, you need to modify the
to allow connections to TCP port 8080 on the virtual machine

network security group (NSG)
virtual network gateway
virtual network
route table

Answer:

network security group (NSG)

Explanation:

A Network Security Group (NSG) in Azure functions as a virtual firewall for your virtual machines (VMs) and other resources within a virtual network. It contains a list of security rules that allow or deny network traffic based on factors like source/destination IP address, port, and protocol. To allow connections to a specific port, such as TCP 8080, on a virtual machine, you must create a new inbound security rule within the NSG that is associated with either the VM's network interface or its subnet. The other options are incorrect as a virtual network gateway is for cross-premises connectivity, a virtual network provides the network infrastructure, and a route table directs traffic flow, not port filtering.

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References:

Microsoft Azure Documentation, "Network security groups".

Reference Details: In the "Overview" section, it states, "A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources... For each rule, you can specify source and destination, port, and protocol." This directly supports the need to modify an NSG to control port access.

Microsoft Azure Documentation, "Filter network traffic with a network security group using the Azure portal".

Reference Details: The tutorial under the section "Create an inbound security rule" provides a step-by-step guide that explicitly demonstrates creating a rule to allow traffic on a specific port (e.g., port 8080) to a VM. This confirms the NSG is the correct component to modify.

Microsoft Azure Documentation, "Virtual network traffic routing".

Reference Details: The "Overview" section explains that Azure route tables are used to control where network traffic is routed. It states, "Azure creates a route table... that enables resources in different subnets to communicate with each other." This shows that route tables are for directing traffic paths, not for allowing or denying access to specific ports.

Question: 260

You have an azure virtual machine named VM1. You plan to encrypt VM1 by using Azure Disk Encryption. Which Azure resource must you create first?

- A. An Azure Storage account
- B. An Azure Information Protection policy
- C. An Encryption Key
- D. An Azure Key Vault

Answer:

D

Explanation:

Azure Disk Encryption helps protect and safeguard your data to meet organizational security and compliance commitments. It uses the industry-standard BitLocker feature of Windows and the DM-Crypt feature of Linux to provide volume encryption for the OS and data disks. This service is integrated with Azure Key Vault to help you control and manage the disk encryption keys and secrets. Therefore, before you can enable encryption on a virtual machine, you must first create an Azure Key Vault to store these keys.

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Why Incorrect Options are Wrong:

- A. An Azure Storage account is required to create the virtual machine and its disks, but it is not the primary prerequisite for the encryption process itself.
- B. An Azure Information Protection policy is used for classifying and protecting documents and emails, which is unrelated to encrypting virtual machine disks.
- C. An Encryption Key is necessary, but it must be stored and managed within an Azure Key Vault. The vault is the resource that must be created first.

References:

1. Microsoft Learn. (2023). Azure Disk Encryption for Windows VMs. Azure Virtual Machines Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-machines/windows/disk-encryption-overview>. Reference Point: In the "How Azure Disk Encryption works" section, it states, "Azure Disk Encryption integrates with Azure Key Vault to help you control and manage the disk encryption keys and secrets."
2. Microsoft Learn. (2023). Create and configure a key vault for Azure Disk Encryption. Azure Virtual Machines Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-machines/windows/disk-encryption-key-vault>. Reference Point: The entire document outlines the necessity and procedure for creating a Key

Vault as a prerequisite for Azure Disk Encryption. The introduction states, "Azure Disk Encryption uses Azure Key Vault to control and manage disk encryption keys and secrets."

3. Microsoft Learn. (2023). Azure Disk Encryption scenarios on Windows VMs. Azure Virtual Machines Documentation. Retrieved from

<https://learn.microsoft.com/en-us/azure/virtual-machines/windows/disk-encryption-windows>.

Reference Point: Under the "Prerequisites" section, the first item listed after VM requirements is "A key vault." It specifies that the Key Vault must exist in the same region and subscription as the VM.

Question: 261

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

You can use
billing period

Advisor recommendations
Access control (IAM)
Budget alerts
Compliance

in Azure to send email alerts when the cost of the current
a specified limit.

Answer:

Budget alerts

Explanation:

You can use Budget alerts in Azure to monitor your spending and trigger notifications when costs reach or exceed a specified threshold. This feature is part of Azure Cost Management and enables you to proactively manage your expenses by setting up budgets for specific scopes, such as subscriptions or resource groups. When spending hits a certain percentage of your defined budget, an alert is automatically sent to designated stakeholders via email, ensuring timely awareness and action to prevent cost overruns.

References:

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Microsoft Learn, Azure Documentation. (2024). Tutorial - Create and manage Azure budgets. In Azure Cost Management. Retrieved from the official Microsoft documentation.

Details: This tutorial explicitly states, "Budgets help you plan for and drive organizational accountability... When the budget thresholds you've created are exceeded, notifications are triggered. You can configure a budget to start an automated action." This directly confirms the function described in the question.

Microsoft Learn, Azure Documentation. (2024). Use cost alerts to monitor usage and spending. In Azure Cost Management. Retrieved from the official Microsoft documentation.

Details: This document clarifies the types of alerts available, stating, "Cost Management alerts are automatically generated when Azure consumption reaches a specific threshold. There are three types of cost alerts: budget alerts, credit alerts, and department spending quota alerts." This establishes "Budget alerts" as the specific and correct term for the scenario.

Question: 262

DRAG DROP Match the term to the appropriate description. To answer, drag the appropriate term from the column on the left to its description on the right. Each term may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Terms	Answer Area
authorization	Term The ability to use the same credentials to access multiple resources and applications from different providers.
multi-factor authentication (MFA)	Term The process of identifying the access level of a user or service.
single sign-on (SSO)	Term One of several elements required to identify a user or a service.

Answer:

Term 1: single sign-on (SSO)

- Description: The ability to use the same credentials to access multiple resources and applications from different providers.

Term 2: authorization

- Description: The process of identifying the access level of a user or service.

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Term 3: multi-factor authentication (MFA)

- Description: One of several elements required to identify a user or a service.

Explanation:

Single Sign-On (SSO) is an authentication scheme that allows a user to log in with a single set of credentials to multiple independent software systems. This matches the description of using one set of credentials for various resources.

Authorization is the security practice of determining a user's or service's level of access or permissions to specific resources. This happens after a user has been successfully authenticated and matches the description of identifying access levels.

Multi-Factor Authentication (MFA) is a security method that requires a user to provide two or more verification factors (elements) to gain access. Each factor is one of the "several elements" required, such as something you know (password), something you have (a security token), or something you are (biometrics).

References:

National Institute of Standards and Technology (NIST). (2017). Special Publication 800-63-3: Digital Identity Guidelines.

SSO: The concept is detailed in Section 4.3, "Federation and Assertions," which describes protocols that enable single sign-on capabilities.

Authorization: The distinction is made in Section 1.2, "Background," which states, "Authentication is the process of establishing confidence in the identity of a subject... This is distinct from authorization, which is the process of determining whether a subject is permitted to perform a certain action."

MFA: Defined in Section 5.1.1, "Multi-Factor Authentication (MFA)," as requiring "at least two of the three authentication factors," which directly aligns with the idea of it being composed of several required elements. DOI: <https://doi.org/10.6028/NIST.SP.800-63-3>

Microsoft. (2024). Microsoft Entra documentation.

SSO: The article "What is single sign-on (SSO) in Microsoft Entra ID?" defines SSO as enabling "users to sign in once and then access many other applications and resources without signing in again."

Authorization: The article "Authentication vs. authorization" states, "Authorization proves you have permission to do something... In the Microsoft identity platform, there are a few ways to do authorization: role-based access control (RBAC) or by checking for the presence of a specific claim in an access token."

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MFA: The article "How it works: Microsoft Entra multifactor authentication" explains that it "is a process in which users are prompted during the sign-in process for an additional form of identification, such as a code on their cellphone or a fingerprint scan."

Question: 263

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

Statements	Yes	No
The cost of Azure resources can vary between regions.	<input type="radio"/>	<input type="radio"/>
An Azure reservation is used to reserve server capacity at a specific data center.	<input type="radio"/>	<input checked="" type="radio"/>
You can stop an Azure SQL Database instance to decrease costs.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

The cost of Azure resources can vary between regions.

Yes

An Azure reservation is used to reserve server capacity at a specific data center.

No

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You can stop an Azure SQL Database instance to decrease costs.

No

Explanation:

The cost of Azure resources can vary between regions: (Yes). Pricing for Azure services is not uniform across all geographic regions. Factors such as local energy costs, taxes, and hardware availability influence the final price. The Azure pricing calculator demonstrates this, as selecting a different region for the same resource will often result in a different cost.

An Azure reservation is used to reserve server capacity at a specific data center: (No). An Azure Reservation provides a billing discount on resource usage (like Virtual Machines or SQL Databases) when you commit to a one- or three-year plan. It does not guarantee compute capacity. The service designed to guarantee compute capacity is called On-demand Capacity Reservation, which is a separate and distinct offering.

You can stop an Azure SQL Database instance to decrease costs: (No). Unlike an Azure Virtual Machine (IaaS), which you can stop to halt compute charges, an Azure SQL Database (PaaS) in the provisioned compute tiers cannot be "stopped." Compute resources are continuously

provisioned and billed, regardless of workload. While the "Serverless" compute tier can automatically pause during periods of inactivity to save on compute costs, you do not manually stop the instance, and this behavior is not characteristic of all Azure SQL Database offerings. Storage is always billed regardless of the database's state.

References:

Azure Regions and Pricing: Microsoft Corporation. (n.d.). Azure geography and regions. Microsoft Docs. Retrieved from <https://learn.microsoft.com/en-us/azure/availability-zones/cross-region-replication-azure#azure-regions>. This document explains that regions are distinct geographies and the basis for pricing variations.

Azure Reservations vs. Capacity Reservation: Microsoft Corporation. (n.d.). What are Azure Reservations? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/cost-management-billing/reservations/save-compute-costs-reservations>. This source clarifies, "An Azure reservation gives you a discount on the resources you use... a reservation doesn't cover the underlying infrastructure costs... It's only a billing discount."

On-demand Capacity Reservation: Microsoft Corporation. (n.d.). On-demand Capacity Reservation overview. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-machines/capacity-reservation-overview>. This document describes the service that does reserve compute capacity.

Azure SQL Database Billing: Microsoft Corporation. (n.d.). Serverless compute tier - Azure SQL Database. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-sql/database/serverless-tier-overview>. In the "Billing" section, it states, "For provisioned compute databases, the compute cost is the total amount of compute provisioned multiplied by the unit price for the fixed amount of time." This confirms continuous billing for provisioned tiers, unlike a stoppable VM.

Question: 264

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

Azure Container Instances
Azure Reserved Virtual Machine Instances
Azure Spot virtual machine instances
Azure virtual machine scale sets

provide access to unused Azure compute capacity at deep discounts.

Answer:

Azure Spot virtual machine instances

Explanation:

Azure Spot virtual machine instances provide access to unused Azure compute capacity at significant discounts compared to pay-as-you-go pricing. This model is ideal for workloads that can tolerate interruptions, as Azure can reclaim the capacity when it's needed for pay-as-you-go workloads. In contrast, Reserved Virtual Machine Instances offer discounts based on a long-term commitment (one or three years), not on unused capacity. Azure Container Instances is a serverless container service, and Virtual machine scale sets are for managing and scaling groups of VMs, which can include Spot instances but are not the pricing model itself.

References:

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Microsoft Azure Documentation: In the "Virtual Machines" documentation, under the section "Use Azure Spot Virtual Machines," it states: "Using Azure Spot Virtual Machines allows you to take advantage of our unused capacity at a significant cost savings. At any point in time when Azure needs the capacity back, the Azure infrastructure will evict Azure Spot Virtual Machines."

Microsoft Azure Documentation: The page titled "Azure compute pricing" details the different pricing options. The section on Spot pricing clearly distinguishes it from other models like Reservations by highlighting that Spot VMs "offer access to unused Azure compute capacity at deep discounts."

Microsoft Azure Documentation: In the documentation for "Azure Reserved VM Instances," it explains that reservations are a billing discount applied when you commit to a one- or three-year term, which is fundamentally different from the opportunistic nature of Spot VMs that leverage surplus capacity.

Question: 265

What can you use to identify underutilized or unused Azure virtual machines?

- A. Azure Advisor
- B. Azure Cost Management + Billing
- C. Azure reservations
- D. Azure Policy

Answer:

A

Explanation:

Azure Advisor is a personalized cloud consultant that analyzes your Azure resource configuration and usage telemetry. It provides recommendations across five pillars: Cost, Security, Reliability, Operational Excellence, and Performance. The Cost pillar specifically includes recommendations to identify and help you address idle or underutilized resources, such as virtual machines with low CPU or network utilization. By flagging these resources, Advisor helps you optimize and reduce your overall Azure spending.

Why Incorrect Options are Wrong:

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- B. Azure Cost Management + Billing: This service is used for tracking and managing Azure spending and budgets, not for providing specific recommendations on resource underutilization.
- C. Azure reservations: This is a pricing model that offers discounts for a one- or three-year commitment to specific resources; it does not identify underutilized assets.
- D. Azure Policy: This is a governance service used to enforce organizational standards and compliance rules on resources; it does not analyze usage patterns.

References:

1. Microsoft Learn, "Introduction to Azure Advisor." This document states, "Advisor helps you optimize and improve...Cost...Advisor's cost recommendations include...Identify idle and underutilized resources." It specifically lists "Optimize virtual machine spend by resizing or shutting down underutilized instances" as a key recommendation.
Source: Microsoft. (n.d.). Introduction to Azure Advisor. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/advisor/advisor-overview> (Section: "Recommendations in Advisor")
2. Microsoft Learn, "Optimize costs with Azure Advisor." This page details the cost optimization capabilities, explicitly mentioning the recommendation to "Optimize virtual machine (VM) or virtual machine scale set (VMSS) spend by resizing or shutting down underutilized instances."
Source: Microsoft. (n.d.). Optimize costs with Azure Advisor. Microsoft Learn. Retrieved from

<https://learn.microsoft.com/en-us/azure/advisor/advisor-cost-recommendations> (Section: "Optimize virtual machine (VM) or virtual machine scale set (VMSS) spend by resizing or shutting down underutilized instances")

3. Microsoft Learn, "What is Azure Cost Management + Billing?" This document clarifies that the service's purpose is to "help you understand your bill, manage your billing account and subscriptions, monitor and control Azure spending, and optimize resource use," focusing on financial tracking rather than technical utilization analysis.

Source: Microsoft. (n.d.). What is Azure Cost Management + Billing?. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/cost-management-billing/cost-management-billing-overview> (Section: "Azure Cost Management + Billing features")

Question: 266

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

Statements	Yes	No
Azure DevOps Services allows developers to deploy or update applications to Azure using Continuous Integration/Continuous Delivery (CI/CD) pipelines.	<input type="radio"/>	<input type="radio"/>
Azure DevOps Services includes a Git repository for developers to store code.	<input type="radio"/>	<input type="radio"/>
Azure DevOps Services can be used to build and host web apps.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

Explanation:

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Statement 1: Azure DevOps Services includes Azure Pipelines, which is a dedicated service for creating and managing Continuous Integration (CI) and Continuous Delivery (CD) workflows. These pipelines enable developers to automatically build, test, and deploy their applications to various targets, including Microsoft Azure.

Statement 2: Azure Repos is a core component of Azure DevOps Services. It provides cloud-hosted, private Git repositories for source code version control, allowing teams to manage their code, track changes, and collaborate on development.

Statement 3: While Azure DevOps Services is used to build and deploy web applications, it does not host them. Application hosting is handled by other Azure services, such as Azure App Service, Azure Kubernetes Service (AKS), or Azure Virtual Machines. Azure DevOps orchestrates the delivery of the application to these separate hosting environments.

References:

Microsoft. (n.d.). What is Azure DevOps?. Microsoft Docs. Retrieved from <https://docs.microsoft.com/en-us/azure/devops/user-guide/what-is-azure-devops>

Relevance: This document explicitly lists and describes the services included in Azure DevOps. It states, "Azure Pipelines: Build, test, and deploy with CI/CD" and "Azure Repos: Get unlimited,

cloud-hosted private Git repos." This directly confirms the first two statements.

Microsoft. (n.d.). Key concepts for new Azure Pipelines users. Microsoft Docs. Retrieved from <https://docs.microsoft.com/en-us/azure/devops/pipelines/get-started/key-pipelines-concepts>

Relevance: This source details the function of Azure Pipelines, explaining that it automates the build and deployment process. It clarifies that a pipeline delivers code to a "deployment target," which is a separate hosting environment.

Microsoft. (n.d.). Azure App Service overview. Microsoft Docs. Retrieved from <https://docs.microsoft.com/en-us/azure/app-service/overview>

Relevance: This document describes Azure App Service as a "fully managed platform for building, deploying, and scaling web apps." This clarifies the distinction between a deployment tool (Azure DevOps) and a hosting platform (Azure App Service), substantiating why the third statement is incorrect.

Question: 267

HOTSPOT To complete the sentence, select the appropriate option in the answer area.



is an Apache Spark-based analytics service.

Answer:

Azure Databricks

Explanation:

Azure Databricks is the correct answer because it is an analytics platform specifically built around and optimized for Apache Spark. Developed in collaboration with the original creators of Spark, it provides a unified environment for data engineering, data science, and machine learning workloads on an Apache Spark foundation.

While Azure HDInsight can run Spark clusters, it is a broader service offering various open-source big data frameworks (like Hadoop, Kafka, and Hive). Therefore, "Apache Spark-based analytics service" is the most precise description for Azure Databricks. Azure Data Factory is a data integration and ETL service, and Azure DevOps is a platform for managing the software development lifecycle.

References:

Microsoft Corporation. (2024). What is Azure Databricks? Azure Databricks Documentation.

Retrieved from Microsoft Docs.

Reference Point: The documentation states, "Azure Databricks is a unified, open analytics platform... The Azure Databricks platform, which is based on Apache Spark, integrates with Azure to provide a streamlined experience..." This directly identifies the service as being based on Apache Spark.

Armbrust, M., et al. (2015). Spark SQL: Relational Data Processing in Spark. Proceedings of the 2015 ACM SIGMOD International Conference on Management of Data, pp. 1383-1394.

DOI: <https://doi.org/10.1145/2723372.2742797>

Reference Point: This paper, co-authored by the creators of Spark (who also founded Databricks), describes the foundation upon which services like Azure Databricks are built, emphasizing the central role of Spark.

Microsoft Corporation. (2024). What is Azure HDInsight? Azure HDInsight Documentation.

Retrieved from Microsoft Docs.

Reference Point: The official documentation describes HDInsight as a service that allows users to

"use open-source frameworks such as Apache Spark, Apache Hive, LLAP, Apache Kafka, Apache Storm, R, & more." This shows it is a multi-framework service, making it a less specific answer than Azure Databricks, which is fundamentally a Spark platform.

Question: 268

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

Statements	Yes	No
You can configure the Azure Active Directory (Azure AD) activity logs to appear in Azure Monitor.	<input type="radio"/>	<input type="radio"/>
From Azure Monitor, you can create alerts.	<input type="radio"/>	<input type="radio"/>
From Azure Monitor, you can monitor resources across multiple Azure subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

All three statements are correct.

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- Azure Active Directory (now Microsoft Entra ID) activity logs can be integrated and streamed directly into an Azure Monitor Log Analytics workspace. This enables advanced querying, analysis, and visualization of identity and access data alongside other telemetry.
- Creating alerts is a fundamental capability of Azure Monitor. It allows you to proactively identify and address issues from your monitoring data before users notice them. Alerts can be triggered by metrics, log queries, and activity log events.
- Azure Monitor is designed to provide a unified, centralized monitoring solution. It can collect logs and metrics from resources located in multiple Azure subscriptions, often by consolidating data into a single Log Analytics workspace, provided the user has the appropriate permissions.

References:

Microsoft. (2023, September 27). Integrate Microsoft Entra logs with Azure Monitor logs. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/entra/identity/monitoring-health/howto-integrate-activity-logs-with-log-analytics>. (See section: "Prerequisites").

Microsoft. (2024, August 28). Overview of alerts in Microsoft Azure. Azure Monitor Documentation. Retrieved from

<https://learn.microsoft.com/en-us/azure/azure-monitor/alerts/alerts-overview>. (See section: "What can you alert on?").

Microsoft. (2024, July 17). Create a Log Analytics workspace in the Azure portal. Azure Monitor Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-monitor/logs/create-workspace?tabs=portal#scope-of-the-workspace>. (See section: "Scope of the workspace," which confirms data can be collected from any subscription).

Question: 269

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

Statements	Yes	No
You can create custom Azure roles to control access to resources.	<input type="radio"/>	<input type="radio"/>
A user account can be assigned to multiple Azure roles.	<input type="radio"/>	<input type="radio"/>
A resource group can have the Owner role assigned to multiple users.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

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All three statements are true and describe fundamental features of Azure Role-Based Access Control (RBAC).

- Azure allows the creation of custom roles when the extensive list of built-in roles does not provide the specific level of granularity required. These custom roles are defined by a JSON file specifying the desired Actions, NotActions, and DataActions.
- A user's permissions in Azure are additive. A user, group, or service principal can be assigned multiple roles across different scopes (management group, subscription, resource group, or individual resource). Their total set of permissions is the union of all their role assignments.
- Any Azure role, including the high-privilege Owner role, can be assigned to multiple users, groups, or service principals at any given scope. This is a common practice for administrative redundancy and team-based management of resources within a resource group.

References:

Microsoft Documentation, Azure RBAC: "Azure custom roles".

Reference: "If the Azure built-in roles don't meet the specific needs of your organization, you can create your own Azure custom roles. Just like built-in roles, you can assign custom roles to users,

groups, and service principals at management group, subscription, and resource group scopes." Microsoft Documentation, Azure RBAC: "What is Azure role-based access control (RBAC)?". Reference: Under the section "How RBAC works," the documentation explains that a role assignment attaches a role definition to a security principal at a particular scope. It also states, "Access is additive. When you have multiple role assignments, your permissions are the sum of those role assignments." This inherently confirms a user can have multiple roles.

Microsoft Documentation, Azure RBAC: "Assign Azure roles using the Azure portal".

Reference: The step-by-step guide for adding a role assignment does not impose a limit of one principal per role at a specific scope. Following the procedure multiple times allows the assignment of the same role (e.g., Owner) to different users for the same resource group.

Question: 270

DRAG DROP Match the cloud computing benefits to the correct descriptions. To answer, drag the appropriate service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point

Benefits	Answer Area
Agility	Benefit Resources can be provisioned dynamically to meet changing demands.
Geo-distribution	Benefit Applications and data can be deployed to multiple regions.
Scalability	Benefit Applications can be developed, tested, and launched rapidly.

Answer:

Scalability: Resources can be provisioned dynamically to meet changing demands.

Geo-distribution: Applications and data can be deployed to multiple regions.

Agility: Applications can be developed, tested, and launched rapidly.

Explanation:

Scalability refers to the ability to adjust IT resources up or down to meet fluctuating user demand. This dynamic provisioning ensures that you have the necessary capacity during peak loads and don't pay for idle resources during quiet periods.

Geo-distribution is the capability to deploy applications and data to datacenters in various geographical locations around the world. This enhances application performance by reducing latency for users and provides resilience against regional disasters.

Agility in the cloud context is the ability to quickly develop, test, and launch applications. Cloud services allow for rapid provisioning and de-provisioning of resources, which significantly shortens development cycles and accelerates time-to-market.

References:

- Microsoft Learn. (n.d.). Describe the benefits of using cloud services. In "Microsoft Azure Fundamentals: Describe cloud concepts" (AZ-900). Retrieved from the Microsoft Learn portal. This official Microsoft training module for the AZ-900 exam explicitly defines Agility as the ability to "react quickly" by allocating and deallocating resources, enabling faster development. It defines Geo-distribution as the ability to "deploy apps and data to regional datacenters around the globe." Scalability is described as the ability to "adjust resources to meet demand."
- Amazon Web Services, Inc. (2022). The Six Advantages of Cloud Computing (Whitepaper).

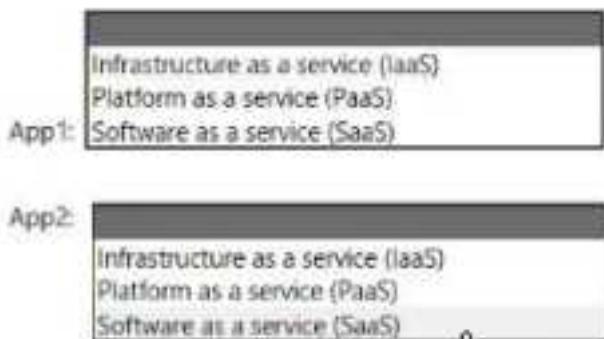
This AWS whitepaper details the core benefits of the cloud. It describes Agility as the ability to access resources in minutes, which "increases agility" and reduces the time it takes to make those resources available to developers. The benefit "Go global in minutes" directly corresponds to Geo-distribution. The concept of Scalability is covered under "Stop guessing capacity," explaining that users can scale resources up or down as needed.

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58. <https://doi.org/10.1145/1721654.1721672>

This foundational academic paper from UC Berkeley discusses core cloud concepts. On page 51, it defines "Elasticity" (a key component of scalability) as the ability for a user to "take as much or as little service as they want at any given time," which directly aligns with provisioning resources to meet changing demands.

Question: 271

HOTSPOT You plan to use Azure to host two apps named App1 and App2. The apps must meet the following requirements • You must be able to modify the code of App1 • Administrative effort to manage the operating system of App1 must be minimized. • App2 must run interactively with the operating system of the server. Which type of cloud service should you use for each app?



Answer:

App1: Platform as a service (PaaS)

App2: Infrastructure as a service (IaaS)

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Explanation:

For App1, the requirements are to modify the application code while minimizing the administrative effort for the underlying operating system. Platform as a service (PaaS) is the ideal model for this scenario. PaaS provides a complete development and deployment environment in the cloud, where the cloud provider manages the infrastructure, including servers, networking, and the operating system. This allows the user to focus solely on deploying and managing their application code without the burden of OS maintenance.

For App2, the requirement is to run interactively with the server's operating system. This necessitates a high degree of control over the OS. Infrastructure as a service (IaaS) provides this level of control by offering fundamental computing resources like virtual machines. With IaaS, the user is responsible for managing the operating system, data, and applications, granting them the direct OS interaction required by App2.

References:

Microsoft Azure Documentation, "What is Platform as a service (PaaS)?". This document states, "PaaS provides a framework that developers can build upon to develop or customize cloud-based applications... servers, storage, and networking can be managed by the enterprise or a third-party provider while developers can maintain management of the applications." This aligns with the

requirements for App1.

Microsoft Azure Documentation, "What is Infrastructure as a service (IaaS)?". This source explains, "IaaS is an instant computing infrastructure, provisioned and managed over the internet... IaaS gives you the highest level of flexibility and management control over your IT resources." This directly supports the choice for App2, which requires control over the operating system.

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (NIST Special Publication 800-145). National Institute of Standards and Technology.

Section 2, IaaS Definition: "The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems, storage, and deployed applications..." This corroborates the selection of IaaS for App2.

Section 2, PaaS Definition: "The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications..." This confirms PaaS is correct for App1.

DOI: <https://doi.org/10.6028/NIST.SP.800-145>

Question: 272

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

When planning to migrate a public website to Azure, you must plan to

- deploy a VPN.
- pay monthly usage costs.
- pay to transfer all the website data to Azure.
- reduce the number of connections to the website.

Answer:

pay monthly usage costs.

Explanation:

When migrating any service to a public cloud provider like Microsoft Azure, the fundamental operational model is based on resource consumption. Azure services, such as compute instances (Virtual Machines or App Services), storage, and data egress, are billed based on usage, typically on a monthly cycle. Therefore, a critical and unavoidable part of the planning process is to estimate and budget for these recurring operational expenditures. The other options are incorrect: a VPN is not required for a public website, data transfer into Azure is generally free, and the goal is typically to handle more connections, not reduce them.

References:

Microsoft Azure Documentation, "Azure pricing": The core pricing model is described as "With pay-as-you-go pricing...you only pay for what you use." This establishes that usage incurs costs that must be planned for. This is the fundamental principle supporting the correct answer.

Microsoft Azure Documentation, "Bandwidth pricing details": Under the "Data Transfer" section, the official pricing details state, "Inbound data transfers are free." This directly refutes the option that you must plan to "pay to transfer all the website data to Azure."

Microsoft Azure Documentation, "What is VPN Gateway?": This document explains that an Azure VPN Gateway is used to "send encrypted traffic between an Azure virtual network and an on-premises location." This is a service for creating secure hybrid connections, not a mandatory component for hosting a public-facing website.

Microsoft Azure Documentation, "Overview of autoscale in Microsoft Azure": This page details how Azure services can automatically scale to handle increases in load and connections. This contradicts the notion of planning to "reduce the number of connections," as a primary benefit of the cloud is elasticity to handle more traffic, not less.

Question: 273

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

Statements	Yes	No
With software as a service (SaaS), you must apply software updates.	<input type="radio"/>	<input checked="" type="radio"/>
With infrastructure as a service (IaaS), you must install the software that you want to use.	<input checked="" type="radio"/>	<input type="radio"/>
Azure Backup is an example of platform as a service (PaaS).	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

Yes

No

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Explanation:

The answers are based on the shared responsibility model in cloud computing, which defines the management tasks handled by the cloud provider versus the customer.

- SaaS (No): In a Software as a Service model, the cloud provider manages the entire technology stack, including the application, its data, and all underlying infrastructure. This management responsibility includes applying all software updates and patches. The customer simply uses the software.
- IaaS (Yes): In an Infrastructure as a Service model, the provider supplies the core infrastructure (virtual machines, storage, networking). The customer is responsible for managing everything above that layer, which includes installing, configuring, and updating the operating system and any application software.
- Azure Backup (No): Azure Backup is a fully managed data protection solution, which makes it an example of SaaS. The user configures backup policies and consumes the service without managing the platform or infrastructure it runs on. A PaaS offering, like Azure App Service, provides a platform on which customers can deploy and manage their own applications.

References:

Microsoft Learn. (n.d.). Shared responsibility in the cloud. Microsoft Docs. Retrieved from <https://learn.microsoft.com/en-us/azure/security/fundamentals/shared-responsibility>. This document explicitly outlines that for IaaS, the customer is responsible for "Applications" and "Operating system," while for SaaS, these are managed by the cloud provider.

Microsoft Learn. (n.d.). What is Azure Backup?. Microsoft Docs. Retrieved from <https://learn.microsoft.com/en-us/azure/backup/backup-overview>. The description of Azure Backup as a "simple, secure, and cost-effective solution" that requires "zero-infrastructure investment" aligns with the definition of a SaaS model.

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

<https://doi.org/10.6028/NIST.SP.800-145>

Section 5, Service Models: Defines IaaS as the capability where the consumer can "deploy and run arbitrary software, which can include operating systems and applications." It defines SaaS as using the provider's applications where the "consumer does not manage or control the underlying cloud infrastructure."

Question: 274

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

An Availability Zone in Azure has physically separate locations

- across two continents.
- within a single Azure region.
- within multiple Azure regions.
- within a single Azure datacenter.

Answer:

within a single Azure region.

Explanation:

An Availability Zone is a high-availability offering from Azure that protects applications and data from datacenter failures. They are unique, physically separate locations with independent power, cooling, and networking, all situated within a single Azure region. A region that supports Availability Zones is composed of a minimum of three separate zones to provide redundancy. This design ensures that if one zone experiences an outage, the other zones within the same region can continue to operate, thereby maintaining service availability.

References:

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Microsoft Azure Documentation, "Azure regions and Availability Zones".

Section: What are regions and Availability Zones in Azure?

Quote: "Availability Zones are unique physical locations within an Azure region." This document explicitly defines an Availability Zone as a component contained within a single region.

Microsoft Azure Documentation, "Build solutions for high availability using Availability Zones".

Section: Availability Zones

Quote: "An Availability Zone in an Azure region is a combination of a fault domain and an update domain... For example, when you create three VMs across three zones in an Azure region, your VMs are effectively distributed across three fault domains and three update domains." This further reinforces that zones are a construct within a region.

Question: 275

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

Statements	Yes	No
You can create a resource group inside of an other resource group.	<input type="radio"/>	<input checked="" type="radio"/>
An Azure virtual machine can be in multiple resource groups.	<input checked="" type="radio"/>	<input type="radio"/>
A resource group can contain resources from multiple Azure regions.	<input checked="" type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

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Nesting Resource Groups: Azure resource groups are flat containers and cannot be nested. Each resource group is a top-level organizational unit directly within a subscription.

Resource Membership: An Azure resource, such as a virtual machine, must belong to exactly one resource group. It cannot be a member of multiple resource groups simultaneously.

Resource Group and Resource Location: A resource group itself has a specific location (region) where its metadata is stored. However, the resources within that group are not required to be in the same region. A single resource group can contain resources from various Azure regions. For instance, a resource group located in East US can contain a virtual machine in West Europe.

References:

Microsoft Azure Documentation, Azure Resource Manager overview. "What is a resource group?" section states, "Every resource must exist in one and only one resource group. ... Resource groups can't be nested."

Microsoft Azure Documentation, Manage Azure resource groups by using the Azure portal. In the "What is a resource group?" section, it is noted: "The resource group stores metadata about the resources. When you specify a location for the resource group, you're specifying where that metadata is stored. ... The location of the resource group can be different than the location of the

resources." This confirms that resources within a group can reside in different regions.

Question: 276

HOTSPOT A tion in the answer area.

You have several virtual machines in an Azure subscription. You create a new subscription.

The virtual machines cannot be moved to the new subscription.

The virtual machines can be moved to the new subscription.

The virtual machines can be moved to the new subscription only if they are all in the same resource group.

The virtual machines can be moved to the new subscription only if they run Windows Server 2019.

Answer:

The virtual machines can be moved to the new subscription.

Explanation:

Azure Resource Manager provides the capability to move resources, including virtual machines and their dependent resources, to a different Azure subscription. This is a standard administrative operation used for purposes like billing consolidation or organizational restructuring. The move is a platform-level operation and is independent of the guest operating system running on the virtual machine. While dependent resources must be moved along with the VM, there is no requirement that all VMs being moved must originate from the same source resource group.

References:

Microsoft Azure Documentation: "Move resources to a new resource group or subscription"

Reference: In the "Checklist before moving resources" and "Supported resources" sections, it is explicitly stated that Microsoft.Compute/virtualMachines are movable resources between subscriptions. The documentation outlines the process and considerations without imposing the restrictions mentioned in the incorrect options (e.g., guest OS type or all resources being in a single group).

Microsoft Azure Documentation: "Move guidance for virtual machines"

Reference: This document provides specific guidance for moving VMs, stating, "When you move a virtual machine to a new resource group or subscription, you must also move its dependent resources." It details which associated resources must be moved but does not limit the move to a specific operating system or mandate that all source resources reside in a single resource group.

Question: 277

Your company has an Azure subscription that contains resources in several regions. You need to ensure that administrators can only create resources in those regions. What should you use?

- A. a read-only lock
- B. an Azure policy
- C. a management group
- D. a reservation

Answer:

B

Explanation:

Azure Policy is the service designed to enforce organizational standards and assess compliance at scale. It allows you to create, assign, and manage policies that enforce rules over your resources. To restrict resource creation to specific regions, an administrator would assign the built-in "Allowed locations" policy definition. This policy can be configured to deny the creation of any resource in a region that is not on the approved list, directly addressing the requirement to control deployment locations for governance purposes.

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Why Incorrect Options are Wrong:

- A. a read-only lock: This prevents modification or deletion of an existing resource but does not control the location of new resource deployments.
- C. a management group: This is a container for organizing subscriptions. While you can apply policies at this scope, the policy itself is the enforcement tool.
- D. a reservation: This is a billing feature that provides discounts on resources in exchange for a term commitment; it does not enforce deployment rules.

References:

1. Microsoft Learn. "What is Azure Policy?". Azure fundamentals (AZ-900). In the section "How Azure Policy works," it states, "Common use cases for Azure Policy include implementing governance for resource consistency, regulatory compliance, security, cost, and management. Policy definitions for these common use cases are already available in your Azure environment as built-ins... For example... Restricting the locations where resources can be created."
2. Microsoft Learn. "Tutorial: Create and manage policies to enforce compliance". Azure Policy documentation. The tutorial's first step is to "Assign a policy to enforce a condition for resources you create in the future. In this case, assign the Allowed locations policy definition to restrict where resources can be created."
3. Microsoft Learn. "Lock resources to prevent unexpected changes". Azure Resource Manager

documentation. The overview section states, "As an administrator, you may need to lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources." This confirms locks apply to existing resources, not the creation of new ones.

4. Microsoft Learn. "What are Azure Reservations?". Cost Management and Billing documentation. The first paragraph states, "Azure Reservations help you save money by committing to one-year or three-year plans for numerous products." This defines its purpose as a cost-saving mechanism.

Question: 278

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

The

Microsoft Online Services Privacy Statement
Microsoft Product Terms
Microsoft Online Service Level Agreement
Online Subscription Agreement for Microsoft Azure

explains what data Microsoft processes, how Microsoft processes the data, and the purpose of processing the data.

Answer:

Microsoft Online Services Privacy Statement

Explanation:

The Microsoft Online Services Privacy Statement is the specific document that details the personal data Microsoft collects, how it is processed, and the purposes for which it is used. This statement applies to Microsoft's online services and provides transparency on their data handling practices. The other documents serve different functions: the Product Terms define use rights and licensing conditions, the Service Level Agreement (SLA) guarantees service uptime and performance, and the Online Subscription Agreement is the legal contract for using a service like Azure.

References:

Microsoft. (2024). Microsoft Privacy Statement. Microsoft Trust Center. Retrieved from <https://privacy.microsoft.com/en-us/privacystatement>.

Supporting Quote: The introductory paragraph states, "This privacy statement explains the personal data Microsoft processes, how Microsoft processes it, and for what purposes."

Microsoft. (2024). Microsoft Product Terms. Microsoft Volume Licensing.

Reference Note: This document outlines the terms and conditions for product usage, including licensing specifics, but does not detail the "what, how, and why" of personal data processing, which is the function of the Privacy Statement.

Microsoft. (2024). Service Level Agreements (SLA) for Online Services. Microsoft Licensing Documentation.

Reference Note: SLAs are focused on service uptime and performance commitments. For example, an SLA might state, "We guarantee 99.9% uptime..." It details remedies for failing to meet these commitments, not data processing policies.

Question: 279

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

Statements	Yes	No
To implement an Azure Multi-Factor Authentication (MFA) solution, you must sync on-premises identities to the cloud.	<input type="radio"/>	<input type="radio"/>
Two valid methods for Azure Multi-Factor Authentication (MFA) are picture identification and a passport number.	<input type="radio"/>	<input type="radio"/>
Azure Multi-Factor Authentication (MFA) can be required for administrative and non-administrative user accounts.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: No

Statement 2: No

Statement 3: Yes

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Explanation:

Azure MFA can be used with cloud-only identities created and managed directly within Microsoft Entra ID (formerly Azure Active Directory). It does not require synchronization with an on-premises Active Directory. MFA is a feature of Microsoft Entra ID and works with all its identity types: cloud-only, synchronized, and federated.

Azure MFA uses authentication methods based on "something you have" or "something you are." Valid methods include the Microsoft Authenticator app, OATH hardware/software tokens, SMS messages, voice calls, and FIDO2 security keys. Picture identification and passport numbers are forms of physical identity verification and are not supported digital methods for Azure MFA.

MFA can be enforced for any user account in a Microsoft Entra ID tenant. It is a common security practice to require MFA for highly privileged administrative accounts using features like Security Defaults or Conditional Access policies. These same policies can be configured to require MFA for non-administrative users, often based on conditions like location, device, or application being accessed.

References:

Microsoft Entra Documentation. "Plan a Microsoft Entra multifactor authentication deployment." This source explains that Microsoft Entra multifactor authentication works with cloud-only, synchronized, or federated identities, confirming it is not mandatory to sync from on-premises. (See the section "Prerequisites").

Microsoft Entra Documentation. "Authentication methods and features." This official page lists all supported authentication methods for Microsoft Entra ID. The list includes options like the Microsoft Authenticator app and SMS, but explicitly omits static information like picture IDs or passport numbers. (See the table in the "Authentication methods" section).

Microsoft Entra Documentation. "Common Conditional Access policies." This document provides examples of Conditional Access policies, including "Require MFA for administrators" and "Require MFA for all users," demonstrating that MFA can be applied to both administrative and non-administrative accounts. (See the sections "Require MFA for administrators" and "Require MFA for all users").

Question: 280

DRAG DROP Match the Azure Services service to the correct description. Instructions: To answer, drag the appropriate service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct selection is worth one point.

Services	Answer Area
Azure Sphere	<input type="text"/>
IoT Central	<input type="text"/>
IoT Hub	<input type="text"/>

A managed service that provides bidirectional communication between IoT devices and Azure

A fully managed software as a service (SaaS) solution to connect, monitor, and manage IoT devices at scale

A software and hardware solution that provides communication and security features for IoT devices

Answer:

IoT Hub: A managed service that provides bidirectional communication between IoT devices and Azure

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IoT Central: A fully managed software as a service (SaaS) solution to connect, monitor, and manage IoT devices at scale

Azure Sphere: A software and hardware solution that provides communication and security features for IoT devices

Explanation:

Azure IoT Hub is a platform as a service (PaaS) that acts as a central message hub for secure and reliable bidirectional communication between your IoT application and the devices it manages. It enables you to connect, monitor, and manage billions of IoT assets.

Azure IoT Central is a fully managed software as a service (SaaS) solution that makes it easy to connect, monitor, and manage your IoT devices at scale. It simplifies the development of IoT solutions by providing a ready-to-use application platform, reducing the burden of developing and managing a complex IoT infrastructure.

Azure Sphere is a secured, high-level application platform with built-in communication and security features for internet-connected devices. It is a holistic solution that includes a secured microcontroller unit (hardware), a custom Linux-based operating system (software), and a

cloud-based security service.

References:

Microsoft Docs: What is Azure IoT Hub? In the "Overview" section, it states, "Azure IoT Hub is a managed service, hosted in the cloud, that acts as a central message hub for bidirectional communication between your IoT application and the devices it manages."

Microsoft Learn: What is Azure IoT Central? The documentation's "Overview" section describes IoT Central as "a fully managed software-as-a-service (SaaS) solution that makes it easy to connect, monitor, and manage your IoT assets at scale."

Microsoft Learn: What is Azure Sphere? The "Overview" section explicitly states, "Azure Sphere is a secured, high-level application platform with built-in communication and security features for internet-connected devices. It comprises a secured, connected, crossover microcontroller unit (MCU), a custom high-level Linux-based operating system (OS), and a cloud-based security service that provides continuous, renewable security."

Question: 281

You need to be notified when Microsoft plans to perform maintenance that can affect the resources deployed to an Azure subscription. What should you use?

- A. Azure Monitor
- B. Azure Service Health
- C. Azure Advisor
- D. Microsoft Trust Center

Answer:

B

Explanation:

Azure Service Health provides personalized alerts and guidance when Azure service issues, planned maintenance, or other changes could affect your specific Azure services and resources. It tracks three types of health events: service issues, health advisories, and planned maintenance. You can configure Service Health alerts to proactively notify you via email, SMS, or other channels about upcoming maintenance, allowing you to prepare for any potential impact on your deployed resources.

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Why Incorrect Options are Wrong:

- A. Azure Monitor: Azure Monitor collects and analyzes performance and telemetry data from your resources. It is used for monitoring your applications' health, not for receiving Microsoft's platform maintenance notifications.
- C. Azure Advisor: Azure Advisor is a recommendation engine that analyzes your resource configuration and usage to suggest optimizations for reliability, security, performance, operational excellence, and cost. It does not report on service health events.
- D. Microsoft Trust Center: The Microsoft Trust Center is a public-facing website that provides detailed information about Microsoft's security, privacy, and compliance policies. It does not provide personalized alerts for specific subscriptions.

References:

1. Microsoft Learn. (2023). Describe Azure Service Health. In "AZ-900: Describe Azure management and governance." This document states, "Azure Service Health can also help you prepare for planned maintenance and changes that could affect the availability of your resources."
2. Microsoft Learn. (2023). What is Azure Service Health?. This official documentation specifies the types of events tracked: "Service Health tracks three types of health events that may impact your resources: 1. Service issues... 2. Planned maintenance... 3. Health advisories..."

3. Microsoft Learn. (2023). Azure Monitor overview. This document clarifies Monitor's purpose: "Azure Monitor helps you maximize the availability and performance of your applications and services. It delivers a comprehensive solution for collecting, analyzing, and acting on telemetry from your cloud and on-premises environments."

4. Microsoft Learn. (2023). Introduction to Azure Advisor. This page defines Advisor's role: "Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments."

Question: 282

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

You can view your company's regulatory compliance report from

▼
Azure Advisor
Azure Analysis Services
Azure Monitor
Azure Security Center

Answer:

Azure Security Center

Explanation:

Azure Security Center, now part of Microsoft Defender for Cloud, is the correct service for viewing regulatory compliance reports. It provides a dedicated regulatory compliance dashboard that continuously assesses your hybrid cloud environment against controls and best practices from various standards like ISO 27001, PCI DSS, and SOC TSP. This feature allows you to track your compliance posture over time and generate reports to provide evidence to auditors.

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- Azure Advisor offers recommendations to optimize Azure resources for reliability, security, performance, and cost, but it does not generate formal compliance reports.
- Azure Analysis Services is a data modeling and business intelligence service.
- Azure Monitor collects and analyzes performance and availability data (telemetry) for your applications and infrastructure.

References:

Microsoft Azure Documentation, "Tutorial: Improve your regulatory compliance," Microsoft Learn. This document states, "Microsoft Defender for Cloud helps streamline the process for meeting regulatory compliance requirements, using the regulatory compliance dashboard... The regulatory compliance dashboard shows the status of all the assessments within your environment for a particular standard or regulation." (Note: Azure Security Center is now integrated into Microsoft Defender for Cloud, which retains this functionality).

Microsoft Azure Documentation, "Regulatory compliance dashboard in Microsoft Defender for Cloud," Microsoft Learn, Security, Microsoft Defender for Cloud section. This source details how the dashboard provides insights into compliance posture based on continuous assessments of the Azure environment.

Question: 283

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

Statements	Yes	No
You can associate a network security group (NSG) to a virtual network subnet.	<input type="radio"/>	<input type="radio"/>
You can associate a network security group (NSG) to a virtual network.	<input type="radio"/>	<input type="radio"/>
You can associate a network security group (NSG) to a network interface.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

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Yes

Explanation:

An Azure Network Security Group (NSG) is used to filter network traffic to and from Azure resources. An NSG can be associated with two types of resources for applying its security rules:

- Subnets: When an NSG is associated with a subnet, its rules are applied to all resources, such as virtual machines, within that subnet.
- Network Interfaces (NICs): An NSG can also be associated directly with an individual network interface attached to a virtual machine.

However, an NSG cannot be associated directly with an entire virtual network (VNet). The association must be at the more granular level of a subnet or a specific network interface.

References:

Microsoft Corporation. (2024). Network security groups. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview>.

Relevant Section: Associate a network security group. This section explicitly states, "You can

associate zero, or one, network security group to each virtual network subnet and network interface in a subscription." It makes no mention of associating an NSG with a virtual network itself.

Microsoft Corporation. (2024). How network security groups filter network traffic. Microsoft Learn. Retrieved from

<https://learn.microsoft.com/en-us/azure/virtual-network/network-security-group-how-it-works>.

Relevant Section: Association of a network security group. This document provides a diagram and text confirming that "A network security group can be associated to a network interface, a subnet, or both."

Question: 284

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

Statements	Yes	No
The Service Level Agreement (SLA) guaranteed uptime for paid Azure services is at least 99.9 percent.	<input type="radio"/>	<input type="radio"/>
Companies can increase the Service Level Agreement (SLA) guaranteed uptime by adding Azure resources to multiple regions.	<input type="radio"/>	<input type="radio"/>
Companies can increase the Service Level Agreement (SLA) guaranteed uptime by purchasing multiple subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

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No

Yes

No

Explanation:

No: Not all paid Azure services have a guaranteed uptime of at least 99.9%. While many services meet or exceed this, some, like a single-instance Virtual Machine using Standard HDD or SSD storage, have SLAs of 95% and 99.5% respectively. The 99.9% threshold is not a universal minimum for all paid services.

Yes: Deploying resources across multiple Azure regions is a core strategy for high availability and disaster recovery. This architectural pattern provides redundancy, so if one region experiences an outage, the application can fail over to another. This significantly increases the overall or composite SLA for the application, making it more resilient than a single-region deployment.

No: An Azure subscription is primarily a billing and management boundary. It does not inherently provide or increase uptime. High availability is achieved through the architectural design of the

solution (e.g., using availability zones or multiple regions), not by separating resources into different subscriptions. Purchasing another subscription, by itself, has no impact on the SLA of the services.

References:

Microsoft Azure Documentation. SLA for Virtual Machines. This document explicitly states that for "any single-instance Virtual Machine using Standard SSD Managed Disks," the SLA is 99.5%, and for "any single-instance Virtual Machine using Standard HDD Managed Disks," the SLA is 95%. This directly contradicts the statement that all paid services have at least a 99.9% SLA.

Microsoft Azure Well-Architected Framework. Design for high availability. In the "Recommendations for availability" section, it states, "Deploy to multiple regions to achieve higher availability." It further explains that multi-region architectures mitigate the risk of broad regional outages, thereby increasing the application's overall uptime guarantee.

Microsoft Azure Cloud Adoption Framework. Azure subscription. This documentation defines a subscription as a "management, billing, and scale unit." Its purpose is related to governance and cost management, not the technical implementation of service uptime. Increasing the SLA is a function of service architecture, not the number of subscriptions.

Question: 285

HOTSPOT To complete the sentence, select the appropriate option in the answer area.

All Azure services that are in public preview are

- provided without any documentation
- only configurable from Azure CLI
- excluded from the Service Level Agreements
- only configurable from the Azure portal

Answer:

excluded from the Service Level Agreements

Explanation:

Azure services in public preview are offered for evaluation purposes and are not intended for production use. Consequently, they do not come with the performance or uptime guarantees that are provided for Generally Available (GA) services. Microsoft explicitly states that these preview services are provided "as-is" and are excluded from the standard Service Level Agreements (SLAs) and any limited warranties until they are officially released for general availability. The other options are incorrect; preview services are provided with documentation and can typically be configured through multiple interfaces, including the Azure Portal, CLI, and PowerShell.

References:

Microsoft Azure Legal Information. In the Supplemental Terms of Use for Microsoft Azure Previews, it states: "Previews are provided 'as-is,' 'with all faults,' and 'as available,' and are excluded from the service level agreements and limited warranty."

Source: Microsoft Corporation. (2024). Supplemental Terms of Use for Microsoft Azure Previews. Retrieved from <https://azure.microsoft.com/en-us/support/legal/preview-supplemental-terms/>
Microsoft Docs - Azure Service Level Agreements. The main SLA page for Azure services details the uptime commitments for commercially available services. Preview services are not listed with SLA commitments, implicitly confirming their exclusion.

Source: Microsoft Corporation. (2024). SLA summary for Azure services. Retrieved from <https://azure.microsoft.com/en-us/support/legal/sla/>

Question: 286

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

After you create a virtual machine, you need to modify the _____ to allow connections to TCP port 8080 on the virtual machine.

network security group (NSG)
virtual network gateway
virtual network
route table

Answer:

network security group (NSG)

Explanation:

To control inbound and outbound network traffic to Azure resources, including virtual machines, you use a Network Security Group (NSG). An NSG acts as a stateful firewall, containing a list of security rules that allow or deny traffic based on factors like source/destination IP address, port, and protocol. To allow connections to TCP port 8080 on a virtual machine, an inbound security rule must be created or modified within the NSG associated with the virtual machine's network interface or its subnet. The other options serve different purposes: a virtual network gateway connects networks, a virtual network provides network isolation, and a route table directs traffic flow, but none are used for port-level filtering.

References:

Microsoft Azure Documentation. (2024). Network security groups. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview>. In the "Introduction," the document states, "You can use an Azure network security group to filter network traffic between Azure resources in an Azure virtual network. A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources."

Microsoft Azure Documentation. (2024). Tutorial: Filter network traffic with a network security group using the Azure portal. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/tutorial-filter-network-traffic>. The tutorial explicitly demonstrates creating an inbound security rule within an NSG to allow traffic on a specific port (e.g., port 80) to a virtual machine.

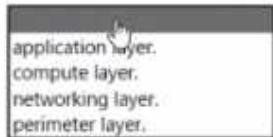
Microsoft Azure Documentation. (2024). Virtual network traffic routing. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview>. This source clarifies that route tables are used to "override Azure's default routing," controlling where traffic is sent, not whether it is allowed or denied at a specific port.

Question: 287

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Azure distributed denial of service (DDoS) protection is an example of protection that is implemented at the



Answer:

perimeter layer.

Explanation:

Azure Distributed Denial of Service (DDoS) Protection is implemented at the perimeter layer of the network security architecture. As part of a defense-in-depth strategy, it operates at the edge of the Azure global network to detect and mitigate malicious traffic from large-scale attacks before they can impact the availability of resources within a virtual network. This placement at the outermost boundary ensures that subsequent layers, such as the networking, compute, and application layers, are shielded from volumetric and protocol-based network attacks.

References:

Microsoft Learn, "Security in Azure": In the section discussing defense in depth, Azure DDoS Protection is explicitly listed as a service implemented at the perimeter layer. The text states, "At the perimeter layer, it's about protecting your organization from network-based attacks against your resources... At this layer you can use: Azure DDoS Protection to filter large-scale attacks before they can cause a denial of service for end users."

Microsoft Learn, "What is Azure DDoS Protection?": The overview documentation describes the service's function at the network edge. It states, "DDoS Protection protects resources at the network edge of the Azure global network. The service monitors traffic at the Azure network edge continuously." This positioning at the "network edge" is synonymous with the perimeter layer in security architecture.

Zand, M., & Dargahi, T. (2022). Cybersecurity for Beginners. Apress. In Chapter 6, "Network Security," the concept of a network perimeter is discussed as the first line of defense. The text explains, "The outermost layer of security is the network perimeter, which is the boundary between the internal network and the external world... Technologies such as firewalls, intrusion detection/prevention systems (IDS/IPS), and DDoS mitigation services are typically deployed at the network perimeter." This aligns Azure's DDoS implementation with standard cybersecurity principles.

Question: 288

Which Azure service can you use as a security information and event management (SIEM) solution?

- A. Azure Analysis Services
- B. Azure Cognitive Services
- C. Azure Sentinel
- D. Azure Information Protection

Answer:

C

Explanation:

Microsoft Sentinel (formerly Azure Sentinel) is a scalable, cloud-native Security Information and Event Management (SIEM) and Security Orchestration, Automation, and Response (SOAR) solution. It is designed to collect security data across the entire enterprise, including on-premises and multi-cloud environments. It uses built-in artificial intelligence to detect, investigate, and respond to security threats, providing a single solution for alert detection and threat visibility. This directly addresses the core function of a SIEM system by aggregating and analyzing security event data from diverse sources to identify and mitigate potential security threats.

Why Incorrect Options are Wrong:

- A. Azure Analysis Services: This is a platform as a service (PaaS) for building enterprise-grade data models for business intelligence and analytics, not for security event management.
- B. Azure Cognitive Services: This is a suite of AI services and APIs for developers to build intelligent applications with capabilities like vision, speech, and language processing.
- D. Azure Information Protection: This is a cloud-based solution used to classify and protect documents and emails by applying labels, focusing on data governance and loss prevention.

References:

1. Microsoft. (2023). What is Microsoft Sentinel? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/sentinel/overview>.
Reference Point: The first paragraph explicitly states, "Microsoft Sentinel is a scalable, cloud-native solution that provides: Security information and event management (SIEM) and Security orchestration, automation, and response (SOAR)."
2. Microsoft. (2023). Describe the security features of Azure. AZ-900: Microsoft Azure Fundamentals learning path. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-security-features-azure/4-describe-azure-sentinel>.
Reference Point: The "What is Microsoft Sentinel?" section states, "Microsoft Sentinel is

Microsoft's cloud-native security information and event manager (SIEM) platform."

3. Microsoft. (2023). What is Azure Analysis Services? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/analysis-services/analysis-services-overview>.

Reference Point: The overview describes it as "a fully managed platform as a service (PaaS) that provides enterprise-grade data models in the cloud," confirming its purpose is data analytics, not security.

4. Microsoft. (2023). What is Azure Information Protection (AIP)? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/information-protection/what-is-information-protection>.

Reference Point: The documentation states AIP "helps you discover, classify, and protect documents and emails by applying labels," confirming its role in data classification and protection.

Question: 289

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Azure Sentinel uses playbooks to

automatically respond to threats.
collect data from Azure services.
specify how long data is retained.
store passwords and certificates.



Answer:

automatically respond to threats.

Explanation:

Azure Sentinel uses playbooks to automate and orchestrate responses to security alerts and incidents. A playbook is a collection of procedures, built on Azure Logic Apps, that can be triggered automatically when an alert is generated or an incident is created. This functionality is a core component of Security Orchestration, Automation, and Response (SOAR). For example, a playbook could automatically block an IP address, disable a user account, or create a ticket in a service management system upon detecting a threat.

Other options are incorrect for the following reasons:

- Data collection from Azure services is managed using data connectors.
- Data retention periods are specified in the settings of the Log Analytics workspace that Sentinel uses.
- The secure storage of passwords and certificates is the primary function of Azure Key Vault, not playbooks.

References:

Microsoft. (2024). Automate threat response with playbooks in Microsoft Sentinel. Microsoft Learn. In the "What is a playbook?" section, it states, "A playbook is a collection of procedures that can be run from Microsoft Sentinel in response to an alert or incident. A playbook can help automate and orchestrate your threat response..."

Microsoft. (2024). Connect data sources to Microsoft Sentinel. Microsoft Learn. In the "Data connectors" section, it clarifies, "Microsoft Sentinel uses data connectors to bring in data from different sources."

Microsoft. (2023). Manage data usage and costs for Microsoft Sentinel. Microsoft Learn. Under the section "Set the data retention period," it explains that data retention is configured at the table level within the Log Analytics workspace.

Question: 290

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

A Microsoft SQL Server database that is hosted in the cloud and has software updates managed by Azure is an example of

- disaster recovery as a service (DRaaS).
- infrastructure as a service (IaaS).
- platform as a service (PaaS).
- software as a service (SaaS).



Answer:

Platform as a service (PaaS)

Explanation:

A Microsoft SQL Server database hosted in the cloud where Azure manages the software updates is a classic example of Platform as a Service (PaaS). In this cloud service model, the provider (Microsoft Azure) manages the underlying infrastructure-hardware, networking, and the operating system-as well as the platform software, which in this case is the SQL Server database engine. The consumer is responsible for deploying and managing their own applications and data that use the database. This abstracts away the complexity of patching, updating, and maintaining the database system, allowing developers to focus on building applications.

This differs from IaaS, where the consumer would manage the operating system and the SQL Server installation themselves, and SaaS, which would provide a complete software application (like an accounting system), not a database platform.

References:

Microsoft Azure Documentation: "What is PaaS? Platform as a service" describes Azure SQL Database as a key example of a PaaS offering. It states, "PaaS includes infrastructure-servers, storage, and networking-but also middleware, development tools, business intelligence (BI) services, database management systems, and more. PaaS is designed to support the complete web application lifecycle: building, testing, deploying, managing, and updating."

Source: Microsoft Corporation. (n.d.). What is PaaS?. Azure.Microsoft.com. Retrieved from the official Microsoft Azure website.

National Institute of Standards and Technology (NIST): The foundational definition of PaaS supports this classification. "The capability provided to the consumer is to deploy onto the cloud

infrastructure consumer-created or acquired applications... The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment."

Source: Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology. Page 2.

IEEE Publication: In a comparative analysis of cloud models, managed database services are consistently categorized under PaaS. "PaaS offers an application development and deployment platform as a service... Typical PaaS providers offer a predefined combination of an OS and application servers, such as... database support."

Source: Dillon, T., Wu, C., & Chang, E. (2010). Cloud Computing: Issues and Challenges. 2010 24th IEEE International Conference on Advanced Information Networking and Applications, 27-33. DOI: 10.1109/AINA.2010.31. (Section III. A. Cloud Service Models).

Question: 291

Your company plans to migrate all its data and resources to Azure. The company's migration plan states that only Platform as a Service (PaaS) solutions must be used in Azure. You need to deploy an Azure environment that meets the company's migration plan. What should you create?

- A. an Azure App Service and Azure SQL databases
- B. Azure storage accounts and web server in Azure virtual machines
- C. Azure virtual machines, Azure SQL databases, and Azure Storage accounts
- D. an Azure App Service and Azure virtual machines that have Microsoft SQL Server installed

Answer:

A

Explanation:

The company's migration plan strictly requires the use of Platform as a Service (PaaS) solutions. PaaS provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the underlying infrastructure.

Azure App Service is a PaaS offering for hosting web applications. Azure SQL Database is a fully managed PaaS database engine. This combination provides a complete application and database platform without requiring the management of virtual machines or operating systems, thereby adhering to the PaaS-only constraint.

Why Incorrect Options are Wrong:

- B. This option includes Azure Virtual Machines, which are an Infrastructure as a Service (IaaS) offering, violating the company's PaaS-only requirement.
- C. This option includes Azure Virtual Machines, which are an IaaS offering, violating the company's PaaS-only requirement.
- D. This option includes Azure Virtual Machines, which are an IaaS offering, violating the company's PaaS-only requirement.

References:

1. Microsoft Learn. (2024). Describe cloud service types. AZ-900: Describe cloud concepts learning path. Under the "Platform as a service (PaaS)" section, both "Azure App Services" and "Azure SQL Database" are listed as examples. Under the "Infrastructure as a service (IaaS)" section, "Azure Virtual Machines" is listed as a primary example. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-cloud-compute/3-describe-cloud-service-types>
2. Microsoft Learn. (2023). App Service overview. Azure App Service documentation. In the first paragraph, it states, "Azure App Service is an HTTP-based service... It's a platform-as-a-service (PaaS) offering...". Retrieved from <https://learn.microsoft.com/en-us/azure/app-service/overview>

3. Microsoft Learn. (2024). What is Azure SQL Database?. Azure SQL Database documentation. The first sentence states, "Azure SQL Database is a fully managed platform as a service (PaaS) database engine... ". Retrieved from

<https://learn.microsoft.com/en-us/azure/azure-sql/database/sql-database-paas-overview>

4. Microsoft Learn. (2023). Introduction to Azure virtual machines. Azure Virtual Machines documentation. The "What is an Azure VM?" section explicitly states, "Azure virtual machines are an example of Infrastructure as a Service (IaaS)." Retrieved from

<https://learn.microsoft.com/en-us/azure/virtual-machines/overview>

Question: 292

Who can use the Azure Total Cost of Ownership (TCO) calculator?

- A. owners for an Azure subscription only
- B. all users who have an account in Azure Active Directory (Azure AD) that is linked to an Azure subscription only
- C. anyone
- D. billing readers for an Azure subscription only

Answer:

C

Explanation:

The Azure Total Cost of Ownership (TCO) Calculator is a publicly available tool provided by Microsoft. Its primary purpose is to help potential and existing customers estimate the cost savings they could achieve by migrating their on-premises workloads to the Azure cloud. Because it is a pre-sales and planning tool, it is accessible to anyone via the public Azure website without requiring an Azure account, subscription, or any specific role-based access control (RBAC) permissions. This open accessibility allows organizations to perform a financial analysis before committing to the Azure platform.

Why Incorrect Options are Wrong:

- A. The tool is designed for estimation before a commitment is made, so subscription ownership is not a prerequisite for its use.
- B. Access is not restricted to users with an Azure AD account; the calculator is a public tool available to anonymous users.
- D. The Billing Reader role pertains to viewing existing spending data within a subscription, which is unrelated to the TCO calculator's function.

References:

1. Microsoft Azure Documentation, "Total Cost of Ownership (TCO) Calculator": The tool is hosted on the public Azure website, accessible to anyone without a login prompt. The page states, "Estimate the cost savings you can realize by migrating your workloads to Azure." Source: <https://azure.microsoft.com/pricing/tco/calculator/>
2. Microsoft Learn, "Describe the Total Cost of Ownership Calculator" (Part of AZ-900 learning path): This official training material describes the TCO Calculator as a tool to "estimate the cost savings" and does not mention any access restrictions or prerequisites like an Azure account or subscription. Source: Microsoft Learn, Module "Describe Azure cost management and Service Level

Agreements", Unit "Describe the Total Cost of Ownership Calculator".

3. Microsoft Learn, "Estimate costs with Azure calculators" (Part of "Plan and manage your Azure costs" module): This document discusses both the Pricing and TCO calculators as planning tools. It explains their purpose is to help users "compare the costs for running an on-premises infrastructure with an Azure Cloud infrastructure," implying their use is for planning and is not restricted to existing customers.

Source: Microsoft Learn, Module "Plan and manage your Azure costs", Unit "Estimate costs with Azure calculators".

Question: 293

HOTSPOT 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
You can use Azure Cost Management to view costs associated to management groups.	<input type="radio"/>	<input type="radio"/>
You can use Azure Cost Management to view costs associated to resource groups.	<input type="radio"/>	<input type="radio"/>
You can use Azure Cost Management to view the usage of virtual machines during the last three months.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

Yes

Yes

Yes

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Explanation:

Azure Cost Management + Billing provides a comprehensive suite of tools to monitor and control Azure spending. It operates across various hierarchical scopes to provide granular or aggregated cost data.

- Costs can be analyzed at the management group level, allowing for a consolidated view of costs across multiple subscriptions, which is essential for enterprise-level governance.
- Similarly, cost analysis is available at the resource group scope, enabling teams to manage and track the costs of resources that share a common lifecycle.
- The cost analysis feature within Cost Management allows you to view detailed historical data. You can filter by specific resources, such as virtual machines, and select custom date ranges, including the last three months, to review both the incurred cost and the underlying usage data (e.g., hours of compute time) that generated those charges.

References:

Microsoft Learn, Azure Cost Management Documentation. "Understand and work with scopes." This document explicitly lists management groups, subscriptions, and resource groups as supported scopes for Azure Cost Management. It states, "Cost Management helps you understand your Azure spending and control costs by providing tools to monitor, allocate, and optimize your cloud costs... You typically use a scope when you use Cost Management features to see data and manage costs."

Microsoft Learn, Azure Cost Management Documentation. "Explore and analyze costs with cost analysis." This guide details the capabilities of the cost analysis tool. It explains how to use date range selections to view historical data and how to group and filter costs by various properties, including Resource type and Resource, to see cost and usage data for services like virtual machines. Section "View cost details" shows that the underlying data includes both cost and usage quantity.

Question: 294

You have an accounting application named App1 that uses a legacy database. You plan to move App1 to the cloud. Which service model should you use?

- A. software as a service (SaaS)
- B. infrastructure as a service (IaaS)
- C. platform as a service (PaaS)

Answer:

B

Explanation:

Infrastructure as a Service (IaaS) is the most appropriate service model for migrating a legacy application. IaaS provides the fundamental building blocks of computing infrastructure, such as virtual machines, storage, and networking. This model offers the greatest level of flexibility and management control, allowing you to configure the operating system and install any required custom software or dependencies, which is essential for a legacy application and its associated database. This approach, often called "lift and shift," involves moving an existing application to the cloud with minimal to no changes, making it the ideal starting point for legacy systems.

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Why Incorrect Options are Wrong:

- A. Software as a Service (SaaS) is incorrect because it involves consuming a ready-to-use software solution provided by a vendor, not hosting your own custom application.
- C. Platform as a Service (PaaS) is less suitable because it abstracts the underlying operating system and infrastructure. A legacy application may have specific dependencies that are incompatible with the managed PaaS environment, requiring significant refactoring.

References:

1. Microsoft Learn, "Describe cloud service types," AZ-900. In the section "Infrastructure as a service (IaaS)," it states, "IaaS is the most flexible category of cloud services... It provides you with the maximum amount of control for your cloud resources." It also lists "Migrating workloads" as a common usage scenario, which aligns with moving a legacy application.
2. Microsoft Learn, "Shared responsibility in the cloud." The shared responsibility model diagram clearly shows that with IaaS, the consumer is responsible for the operating system, middleware, and runtime. This level of control is necessary to ensure compatibility for a legacy application and its database.
3. Microsoft Azure Documentation, "What is Infrastructure as a service (IaaS)?" Under the section "Common IaaS business scenarios," it lists "Lift-and-shift migration" as a primary use case. It

describes this as the quickest way to migrate an application by replicating the existing on-premises environment in an IaaS architecture.

Question: 295

What is the longest term you can purchase for Azure Reserved VM Instances?

- A. three years
- B. four years
- C. one year
- D. five years

Answer:

A

Explanation:

Azure Reservations, which include Azure Reserved VM Instances, allow customers to commit to a specific plan for a set duration to receive a discount on usage. The available commitment terms for these reservations are either one year or three years. By committing to a longer term, customers can achieve greater cost savings compared to pay-as-you-go pricing. Therefore, the longest term available for purchase is three years.

Why Incorrect Options are Wrong:

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- B. four years: Azure does not offer a four-year term for Reserved VM Instances. The available options are limited to one and three years.
 - C. one year: While one year is a valid purchase term for an Azure Reserved VM Instance, the question specifically asks for the longest available term.
 - D. five years: Azure does not offer a five-year term for Reserved VM Instances. The maximum commitment period is three years.

References:

1. Microsoft Learn. (2023). What are Azure Reservations?. "You purchase a reservation by committing to a one-year or three-year plan for various products."
2. Microsoft Learn. (2023). Prepay for virtual machines with Azure Reserved VM Instances. In the "Buy a reservation" section, it states, "You can purchase a reservation for a one-year or three-year term."

Question: 296

You need to manage containers. Which two services can you use? Each correct answer presents a complete solution, NOTE: Each correct selection is worth one point.

- A. Azure Virtual Desktop
- B. Azure virtual machines
- C. Azure Functions
- D. Azure Kubernetes Service (AKS)
- E. Azure Container Instances

Answer:

D, E

Explanation:

Azure offers two primary services specifically designed for managing and running containerized applications. Azure Kubernetes Service (AKS) is a fully managed container orchestration service that simplifies deploying, scaling, and managing applications using Kubernetes. It is ideal for complex, multi-container applications. Azure Container Instances (ACI) provides a serverless environment to run containers without managing underlying virtual machines or orchestration platforms. ACI is suited for simple applications, task automation, and build jobs that can operate in isolated containers.

Why Incorrect Options are Wrong:

- A. Azure Virtual Desktop is a Desktop-as-a-Service (DaaS) solution for virtualizing desktops and applications, not for managing general-purpose application containers.
- B. Azure virtual machines are IaaS resources that can host containers, but they are not a dedicated container management or orchestration service.
- C. Azure Functions is a serverless, event-driven compute service (FaaS) for running code snippets, not a service for managing containerized applications.

References:

1. Microsoft Learn. (2024). Compare Azure Container Instances and Azure Kubernetes Service. In "Describe Azure compute and networking services" (AZ-900). Section: "Compare container services".

This document explicitly compares ACI and AKS as Azure's primary container services. It states, "Azure Container Instances (ACI) offers the fastest and simplest way to run a container in Azure... Azure Kubernetes Service (AKS) is a complete orchestration service for containers with distributed architectures with multiple containers."

2. Microsoft Learn. (2023). What is Azure Kubernetes Service?. Azure Documentation. Section: "What is Kubernetes?".

This source defines AKS as "a managed container orchestration service" and highlights its role in automating, managing, and scaling containerized applications.

3. Microsoft Learn. (2023). What is Azure Container Instances?. Azure Documentation. Section: "What is a container?".

This document describes ACI as "a solution for any scenario that can operate in isolated containers, without orchestration," confirming its role as a direct container management service.

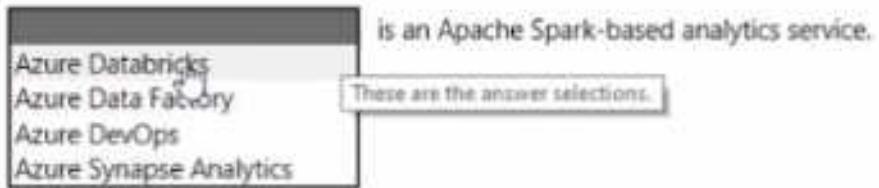
4. Microsoft Learn. (2024). Choose an Azure compute service. Azure Architecture Center. Section: "Service comparison".

This reference provides a comparison table that categorizes AKS and ACI under the "Containers" category, while placing Virtual Machines, Functions, and Virtual Desktop in different categories (IaaS, Serverless, and VDI respectively).

Question: 297

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Azure Databricks

Explanation:

Azure Databricks is the correct answer because it is an analytics platform explicitly built on and optimized for Apache Spark. It provides a collaborative environment for data scientists, engineers, and analysts to run large-scale data engineering and machine learning workloads using Spark.

- Azure Data Factory is a cloud-based data integration service for orchestrating and automating data movement and transformation (ETL/ELT), not a Spark-based analytics service itself.
- Azure DevOps is a suite of services for software development lifecycle management and has no direct relation to Apache Spark analytics.
- Azure Synapse Analytics is a broader, integrated analytics service that includes Apache Spark pools as one of its components, but its core identity is not solely as a Spark-based service; it also integrates SQL data warehousing and other features. Therefore, Azure Databricks is the most precise answer.

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References:

Microsoft Azure Documentation, "What is Azure Databricks?". Retrieved September 11, 2025.
Reference: In the "Overview" section, the documentation states: "Azure Databricks is an Apache Spark-based analytics platform optimized for the Microsoft Azure cloud services platform." This directly confirms that the service is fundamentally based on Apache Spark.

Microsoft Azure Documentation, "What is Azure Synapse Analytics?". Retrieved September 11, 2025.

Reference: The "Overview" section describes Synapse as an "enterprise analytics service that accelerates time to insight across data warehouses and big data systems." It further explains that "Apache Spark for Azure Synapse deeply and seamlessly integrates Apache Spark" as one of its key capabilities, indicating Spark is a component within a larger service, not the foundation of the

entire service itself.

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Question: 298

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

An Azure region

contains one or more data centers that are connected by using a low-latency network.

is found in each country where Microsoft has a subsidiary office.

can be found in every country in Europe and the Americas only.

contains one or more data centers that are connected by using a high-latency network.

Answer:

contains one or more data centers that are connected by using a low-latency network.

Explanation:

An Azure region is a specific geographical location on the planet that houses at least one, but potentially multiple, data centers. A key characteristic of a region is that these data centers are located in close proximity and are interconnected by a dedicated, private, low-latency network. This design ensures high performance, high availability, and resiliency for the applications and services deployed within that region. The proximity and low-latency connection are crucial for features like Availability Zones, which provide fault tolerance within a single region.

The other statements are incorrect. Azure regions are not determined by the location of Microsoft subsidiary offices, they exist globally (not just in Europe and the Americas), and they are explicitly designed for low, not high, network latency between their constituent data centers.

References:

Microsoft Learn. (n.d.). Describe Azure architectural components. Microsoft. Retrieved from the "What are regions and availability zones?" section.

Reference: In the section "What is a region?", the documentation states, "An Azure region is a geographical area on the planet that contains at least one but potentially multiple datacenters that are nearby and networked together with a low-latency network."

Microsoft Azure Documentation. (2024). Azure regions and availability zones. Microsoft. Retrieved from the "Regions" section.

Reference: The documentation defines a region as "a set of datacenters deployed within a latency-defined perimeter and connected through a dedicated regional low-latency network." This explicitly confirms that a low-latency network is a fundamental component of a region's architecture.

Question: 299

HOTSPOT 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
The Archive access tier is set at the storage account level.	<input type="radio"/>	<input type="radio"/>
The Hot access tier is recommended for data that is accessed and modified frequently.	<input type="radio"/>	<input type="radio"/>
The Cool access tier is recommended for long term backups.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

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Explanation:

The Archive access tier is set at the individual blob level, not at the storage account level. While you can set a default account access tier, the available options are only Hot or Cool. The Archive tier must be applied to blobs individually.

The Hot access tier is optimized for data that is frequently accessed or modified. It has higher storage costs but the lowest access costs, making it ideal for active data.

The Cool access tier is intended for data that is infrequently accessed and stored for at least 30 days, such as short-term backups. For long-term backups, the Archive tier is the recommended, most cost-effective option, designed for data that is rarely accessed and can tolerate retrieval latencies of several hours.

References:

Microsoft Azure Documentation, "Azure Blob storage access tiers - Hot, Cool, and Archive."

Reference: Under the section "Account-level tiering," it states, "The account access tier is the default tier that is inferred for any blob that doesn't have an explicit tier set at the blob level. You can set the account access tier to Hot or Cool." This confirms the Archive tier is not an

account-level setting.

Reference: The "Hot access tier" section states it's "optimized for frequent reads and writes." The "Cool access tier" is "optimized for storing large amounts of data that is infrequently accessed and stored for at least 30 days." The "Archive access tier" is "optimized for storing data that is rarely accessed and stored for at least 180 days with flexible latency requirements." This clarifies the intended use for each tier.

Question: 300

DRAG DROP Match The cloud service models to the appropriate offerings. To answer drag the appropriate model from the column on the left to its offering on the right. Each model may be used once, more than once, or not at all. NOTE Each correct match is worth one point.

Models	Answer Area
Infrastructure as a service (IaaS)	Model Azure App Service
Platform as a service (PaaS)	Model Azure virtual machines
Software as a service (SaaS)	Model Microsoft Dynamics 365

Answer:

Azure App Service: Platform as a service (PaaS)

Azure virtual machines: Infrastructure as a service (IaaS)

Microsoft Dynamics 365: Software as a service (SaaS)

Explanation:

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The three main cloud service models are IaaS, PaaS, and SaaS, each offering a different level of management and control.

- Infrastructure as a Service (IaaS) provides fundamental computing infrastructure like servers, storage, and networking. Azure virtual machines are a classic example, as the user rents the hardware but is responsible for managing the operating system and applications.
- Platform as a Service (PaaS) offers a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure. Azure App Service fits this model by providing a fully managed environment for web apps.
- Software as a Service (SaaS) delivers ready-to-use software applications over the internet on a subscription basis. Microsoft Dynamics 365 is a SaaS offering because it is a complete business application managed entirely by Microsoft.

References:

Microsoft Learn. (2024). App Service overview. "Azure App Service is an HTTP-based service for hosting web applications, REST APIs, and mobile back ends... As a platform as a service (PaaS) offering, you don't have to manage the OS or infrastructure."

Microsoft Learn. (2024). What is Infrastructure as a Service (IaaS)? "The most common and well-known type of IaaS resource is the virtual machine... IaaS gives you the most control of any cloud service model over your provided hardware."

Microsoft Learn. (2024). What is Software as a Service (SaaS)? "Software as a service (SaaS) allows users to connect to and use cloud-based apps over the Internet. Common examples are email, calendaring, and office tools (such as Microsoft Office 365)." Microsoft Dynamics 365 is a component of this ecosystem.

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

<https://doi.org/10.6028/NIST.SP.800-145>

Section: "Service Models" (Page 2-3): This foundational document defines IaaS, PaaS, and SaaS, providing the official classifications used across the industry to categorize services like those in the question.

Question: 301

HOTSPOT 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
Pay-As-You-Go (PAYG) is a consumption-based model.	<input type="radio"/>	<input type="radio"/>
Payments to cloud service providers are considered capital expenditures (CapEx).	<input type="radio"/>	<input type="radio"/>
The services provided through a consumption-based model are considered operational expenditures (OpEx).	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

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Explanation:

Cloud computing operates on a consumption-based model, where you pay only for the resources you use, a concept often referred to as Pay-As-You-Go (PAYG). This aligns with the Operational Expenditure (OpEx) model, which covers ongoing costs of doing business, such as subscriptions and utility bills. There are no upfront costs.

In contrast, Capital Expenditure (CapEx) involves purchasing physical assets like servers and infrastructure, which depreciate over time. Because cloud providers own and manage the hardware, customer payments are for services rendered, not for asset acquisition, making them an OpEx, not a CapEx. Therefore, the consumption-based services are correctly classified as operational expenditures.

References:

- Microsoft. (n.d.). Compare capital expenditure (CapEx) and operational expenditure (OpEx). Microsoft Learn. Retrieved from Microsoft's official training documentation for Azure Fundamentals (AZ-900), which states, "With cloud computing, you don't need to purchase hardware. Instead of paying for physical servers and infrastructure, you rent them. This reduces your capital expenditure (CapEx) and replaces it with operational expenditure (OpEx)." Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D.,

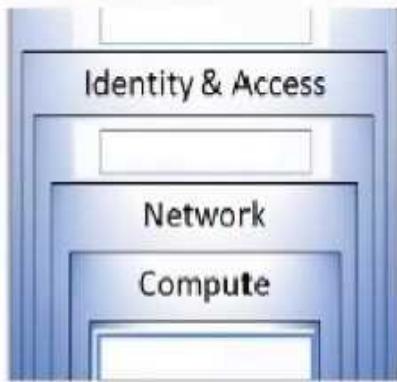
Rabkin, A., Stoica, I., & Zaharia, M. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58. <https://doi.org/10.1145/1721654.1721672>. This seminal paper discusses the economic model of cloud computing, noting that it allows capital expenditure to be converted into operating expenditure (Section 3.1, Paragraph 2).

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology. Retrieved from <https://doi.org/10.6028/NIST.SP.800-145>. The essential characteristic of "Measured Service" described on page 2 states that "resource usage can be monitored, controlled, and reported, providing transparency for both the provider and consumer of the utilized service," which is the foundation of the consumption-based PAYG model.

Question: 302

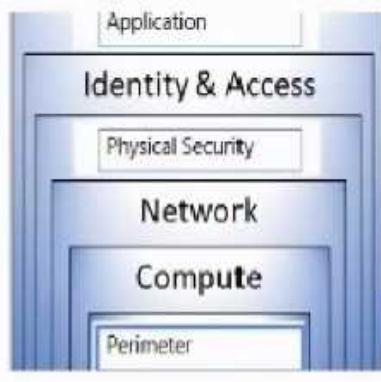
DRAG DROP You need to complete the defense-in-depth strategy used in a datacenter. What should you do? To answer, drag the appropriate layers to the correct positions in the model. Each layer may be used once, more than once, or not at all. NOTE: Each correct selection is worth one point.

Layers	Answer Area
Perimeter	
Application	
Physical Security	



Explanation:

Layers	Answer Area
Perimeter	
Application	
Physical Security	



Question: 303

DRAG DROP Match the resources to the appropriate descriptions. To answer, drag the appropriate resource from the column on the left to its description on the right. Each resource may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Resources	Answer Area
Data Protection Addendum	<input type="text"/> Describes which personal data is collected, how the data is used, and what the data is used for.
Microsoft Privacy Statement	<input type="text"/> A legal agreement that details the obligations between Microsoft and a customer regarding the processing and security of customer data and personal data.
Online Services Terms	<input type="text"/> Defines the data processing and security terms for online services, including the disclosure of processed data and the transfer, retention, and deletion of data.

Answer:

Describes which personal data is collected, how the data is used, and what the data is used for.: Microsoft Privacy Statement

A legal agreement that details the obligations between Microsoft and a customer regarding the processing and security of customer data and personal data.: Online Services Terms

Defines the data processing and security terms for online services, including the disclosure of processed data and the transfer, retention, and deletion of data.: Data Protection Addendum

Explanation:

The Microsoft Privacy Statement is a public-facing document explaining to individuals the personal data Microsoft processes and for what purposes. It's about transparency with end-users.

The Online Services Terms (OST) constitute the primary legal agreement between Microsoft and a commercial customer. It governs the use of Microsoft's online services and outlines the broader obligations of both parties.

The Data Protection Addendum (DPA) is a specific supplement to the Online Services Terms. It details Microsoft's commitments as a data processor, focusing on the specific terms for the processing, security, transfer, retention, and deletion of customer data to comply with data protection laws like GDPR.

References:

Microsoft Privacy Statement: According to Microsoft's official documentation, "The Microsoft privacy statement explains what personal data Microsoft collects, how we use it, and for what purposes."

Source: Microsoft Trust Center, "Microsoft Privacy Statement".

Microsoft Online Services Terms (OST): The introduction to the Microsoft Product Terms document (which contains the OST) states that it details the terms and conditions for the products and Online Services, forming a legal agreement between Microsoft and the customer.

Source: Microsoft Licensing, "Product Terms," Introduction.

Microsoft Products and Services Data Protection Addendum (DPA): The introduction to the DPA states, "This Microsoft Products and Services Data Protection Addendum (DPA) applies to the processing of Personal Data by Microsoft on your behalf... It details the parties' obligations with respect to the processing and security of Customer Data and Personal Data."

Source: Microsoft Licensing, "Microsoft Products and Services Data Protection Addendum (DPA)," Introduction.

Question: 304

You have an Azure environment that contains 10 virtual networks and 100 virtual machines. You need to limit the inbound traffic to all the Azure virtual networks. What should you create?

- A. one Azure firewall
- B. 10 Azure ExpressRoute circuits
- C. 10 virtual network gateways
- D. one application security group (ASG)

Answer:

A

Explanation:

Azure Firewall is a managed, cloud-native, intelligent network firewall security service that provides centralized threat protection for all resources within a virtual network. A single Azure Firewall can be deployed in a central "hub" virtual network to inspect and filter inbound and outbound traffic for multiple "spoke" virtual networks that are connected via peering. This hub-and-spoke model allows for the central creation, enforcement, and logging of network connectivity policies across all 10 virtual networks, fulfilling the requirement with a single, scalable solution.

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Why Incorrect Options are Wrong:

- B. 10 Azure ExpressRoute circuits: Azure ExpressRoute is a service that provides private, dedicated connectivity between an on-premises network and Azure, not a tool for filtering network traffic.
- C. 10 virtual network gateways: Virtual network gateways are used to facilitate encrypted traffic between an Azure virtual network and an on-premises location (VPN) or other virtual networks, not for centralized traffic filtering.
- D. one application security group (ASG): An Application Security Group (ASG) is a logical grouping for virtual machines. It does not filter traffic itself but is used as a source or destination in Network Security Group (NSG) rules to simplify policy management.

References:

1. Microsoft Learn. "What is Azure Firewall?". Azure Documentation. "You can centrally create, enforce, and log application and network connectivity policies across subscriptions and virtual networks." This supports the use of a single firewall for multiple VNets.
2. Microsoft Learn. "Hub-spoke network topology in Azure". Azure Architecture Center. "The firewall acts as the central point of connectivity... This model allows IT departments to centrally enforce security policies." This document describes the exact architecture for using one firewall to

protect multiple virtual networks.

3. Microsoft Learn. "Application security groups". Azure Documentation. "Application security groups enable you to configure network security as a natural extension of an application's structure... You can then use those application security groups as the source and destination in network security group rules." This clarifies that ASGs are grouping objects for NSG rules, not standalone filtering mechanisms.

4. Microsoft Learn. "Azure ExpressRoute overview". Azure Documentation. "Azure ExpressRoute lets you extend your on-premises networks into the Microsoft cloud over a private connection..." This confirms ExpressRoute's purpose is connectivity, not security filtering.

Question: 305

Fill in the blank () is a highly secure IoT solution that includes a microcontroller unit (MCU) and a customized Linux operating system.

Answer:

Azure Sphere

Explanation:

Azure Sphere is a comprehensive and highly secure IoT platform created by Microsoft. It consists of three integrated components: a certified microcontroller unit (MCU) with built-in Microsoft security technology, the custom Linux-based Azure Sphere Operating System (OS) designed for security and connectivity, and the cloud-based Azure Sphere Security Service. This service provides device-to-cloud communication, detects emerging threats, and ensures ongoing device security through software updates. The combination of these three parts directly matches the description of a secure IoT solution with an MCU and a customized Linux OS.

References:

1. Microsoft Corporation. (2024). What is Azure Sphere?. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure-sphere/get-started/what-is-azure-sphere>. (See the "The three components of Azure Sphere" section, which details the certified MCU, the OS, and the Security Service).
2. Microsoft Corporation. (2024). Describe Azure Sphere. AZ-900: Microsoft Azure Fundamentals learning path. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-iot-services/5-describe-azure-sphere>. (See the "What is Azure Sphere?" section, paragraph 1, which states, "Azure Sphere is a comprehensive IoT security solution that includes hardware, an operating system, and a cloud component... The OS is a customized Linux-based operating system...").

Question: 306

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

Statements	Yes	No
A company has complete control of the resources and security for its private cloud.	<input type="radio"/>	<input type="radio"/>
A hybrid cloud solution enables a company to control whether its applications run on-premises or in the cloud.	<input type="radio"/>	<input type="radio"/>
Companies are responsible for capital expenditure when they scale up a virtual machine hosted in a public cloud.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

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Explanation:

A company has complete control of the resources and security for its private cloud.

- Yes. A private cloud consists of computing resources used exclusively by one business or organization. Because the resources are dedicated, a company has complete, direct control over the underlying infrastructure, its configuration, and security policies.

A hybrid cloud solution enables a company to control whether its applications run on-premises or in the cloud.

- Yes. A hybrid cloud combines public and private clouds. This model's core benefit is providing an organization the flexibility to place workloads and applications in the most appropriate environment (on-premises or public cloud) based on security, performance, or cost requirements.

Companies are responsible for capital expenditure when they scale up a virtual machine hosted in a public cloud.

- No. Public cloud services operate on an operational expenditure (OpEx) model, where you pay for what you consume. Capital expenditure (CapEx) involves upfront spending on physical

infrastructure. Since the cloud provider owns the hardware, the customer does not incur CapEx when scaling a VM; they simply incur a higher operational cost.

References:

- Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing. National Institute of Standards and Technology, Special Publication 800-145, p. 3. This publication defines a Private Cloud as being "provisioned for exclusive use by a single organization" which implies complete control over security and resources. It also defines Hybrid Cloud as a composition of two or more distinct cloud infrastructures (private, community, or public).
- Microsoft. (n.d.). What is a private cloud?. Microsoft Azure Documentation. Retrieved September 12, 2025. In the section "Private cloud benefits," the document states, "A private cloud offers more control over resources and security than a public cloud architecture because the hardware is dedicated to a single customer."
- Microsoft. (n.d.). Describe cloud concepts. Microsoft Learn. In the "Compare the cloud models" and "Describe the consumption-based model" units, it is explained that the public cloud shifts spending from Capital Expenditure (CapEx) to Operational Expenditure (OpEx), as there is no need to purchase and manage infrastructure.
- Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D. A., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58. Section 5, "The Economic Case for Cloud Computing," explains that cloud computing converts capital expenses into operating expenses. DOI: <https://doi.org/10.1145/1721654.1721672>

Question: 307

Fill in the blank To save on the costs of an unused Azure virtual machine that runs Windows 10, you should ()

Answer:

deallocate

Explanation:

Stopping a VM from inside the guest OS keeps its compute resources allocated, so you still pay. Issuing a Stop (Deallocate) action in Azure releases the virtual CPU and memory, halting compute billing; only the attached storage continues to incur cost, minimizing expense for an unused Windows 10 VM.

References:

1. Microsoft Docs - "Understand how stopped (deallocated) VMs are billed," Azure Virtual Machines documentation, Section Billing impact, para 2.
<https://learn.microsoft.com/en-us/azure/virtual-machines/stopped-deallocated-vms>
2. Microsoft Docs - "Stop or start a virtual machine in the Azure portal," Steps 5-6 (Stop Deallocate). <https://learn.microsoft.com/en-us/azure/virtual-machines/windows/stop-start-vm>
3. Microsoft Learn AZ-900 Course, Module "Describe cost management in Azure," Unit "Reduce costs by shutting down or deallocating unused resources," para 1.

Question: 308

DRAG DROP Match the cloud computing benefits to the correct descriptions. To answer, drag the appropriate service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point

Benefit	Answer Area
Disaster recovery	
Geo-distribution	
High availability	
Scalability	

Answer:

Scalability: increase the compute capacity of apps in the cloud.

High availability: Provide a continuous user experience with no apparent downtime.

Geo-distribution: Ensure that users always have the best experience by deploying apps to all the regions where there are users.

Explanation:

Scalability refers to the ability to adjust resources allocated to an application, such as increasing compute capacity to handle a higher load. High availability is the principle of designing systems to ensure a high level of operational performance and uptime, preventing service interruptions and providing a continuous experience. Geo-distribution involves deploying applications across multiple geographic locations to place them closer to users. This reduces latency and improves the user experience by serving them from the nearest datacenter.

References:

Microsoft Azure Documentation, "Microsoft Azure Well-Architected Framework - Reliability," Learn.microsoft.com. Accessed September 12, 2025.

Section: "Design for high availability"

Content: This section defines High Availability (HA) as the capability of a system to continue functioning even if some of its components fail, which directly supports the match for "Provide a continuous user experience with no apparent downtime."

Microsoft Azure Documentation, "Microsoft Azure Well-Architected Framework - Performance efficiency," Learn.microsoft.com. Accessed September 12, 2025.

Section: "Design for scaling"

Content: This document explains that scalability is the ability of a system to handle an increased workload, which can be achieved by adding or removing resources. This aligns perfectly with "increase the compute capacity of apps."

Microsoft Azure Documentation, "Choose the right Azure services for global distribution," Learn.microsoft.com. Accessed September 12, 2025.

Section: "Multi-region architecture"

Content: This page describes how deploying applications to multiple regions worldwide brings them closer to users, reducing network latency and improving performance. This is the core concept of Geo-distribution.

Question: 309

Fill in the blank () runs application code in Azure without requiring a server.

Answer:

Azure Functions

Explanation:

Azure Functions is a serverless compute service that enables users to run event-triggered code without having to explicitly provision or manage infrastructure. It is a core component of serverless computing on Azure, designed to accelerate development by allowing developers to focus solely on their application code. The service automatically provides and scales the necessary compute resources to meet demand in response to various triggers, such as an HTTP request, a new message in a queue, or a timer. This model directly aligns with the scenario of running code without managing a server.

References:

1. Microsoft Learn. (n.d.). Describe Azure serverless computing. In AZ-900: Microsoft Azure Fundamentals. Retrieved from Microsoft Docs.

Reference: In the "Describe Azure Functions" section, it states, "Azure Functions is a serverless solution that allows you to write less code, maintain less infrastructure, and save on costs.

Instead of worrying about deploying and maintaining servers, the cloud infrastructure provides all the up-to-date resources needed to keep your applications running."

2. Microsoft Azure Documentation. (n.d.). An introduction to Azure Functions. Retrieved from Microsoft Docs.

Reference: The overview section states, "Azure Functions is a serverless compute service that lets you run event-triggered code without having to explicitly provision or manage infrastructure."

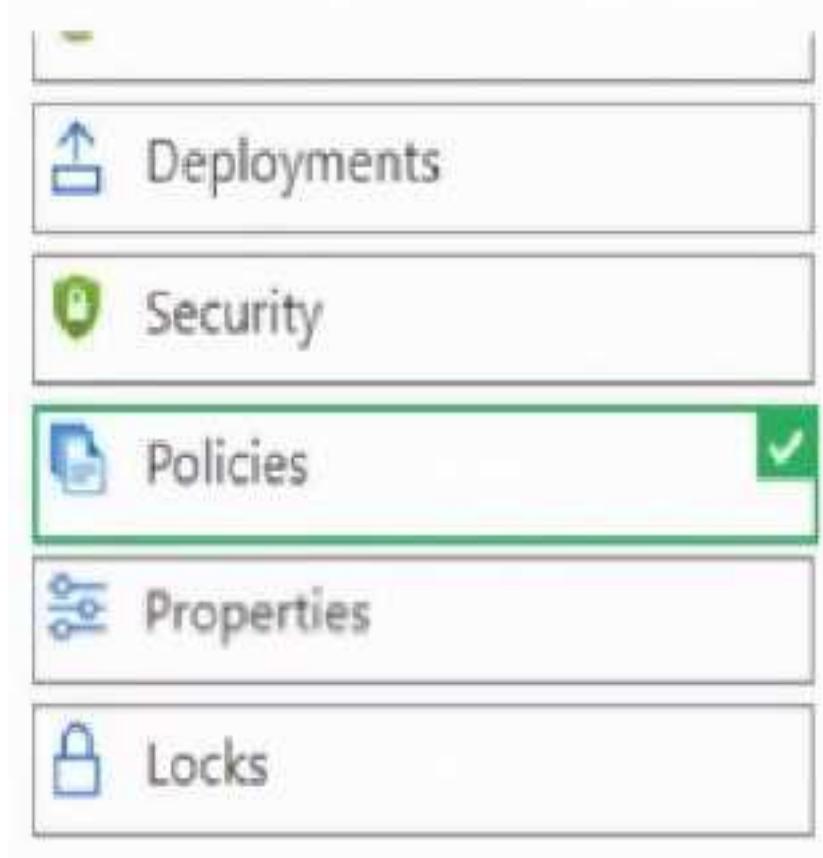
3. Castro, P., et al. (2019). Rise of the Serverless. Communications of the ACM, 62(12), 44-54.

DOI: <https://doi.org/10.1145/3361723>

Reference: Page 46, Section "Serverless Platforms." The article identifies major serverless platforms, stating, "The three major cloud providers-Amazon (AWS Lambda), Google (Google Cloud Functions), and Microsoft (Azure Functions)-were the first to offer serverless platforms..." This establishes Azure Functions as a primary example of a service that embodies the serverless model.

Question: 310

HOTSPOT Which node in the Azure portal should you use to assign a user the Reader role for a resource group? To answer, select the node in the answer area. NOTE: Each correct selection is worth one point.



Answer:

Access control (IAM)

Explanation:

Azure Role-Based Access Control (RBAC) is the system used to manage access to Azure resources. To assign a role, such as the 'Reader' role, to a user for a specific scope like a resource group, you must use the Access control (IAM) blade in the Azure portal. This is the designated interface for viewing, adding, and removing role assignments. The 'Overview' blade provides a summary of the resource, 'Activity log' tracks management events, and 'Tags' are for metadata organization; none of these are used for managing permissions.

References:

1. Microsoft Learn. (2024). Assign Azure roles using the Azure portal. In Azure documentation, Microsoft. Retrieved from <https://learn.microsoft.com/en-us/azure/role-based-access-control/role-assignments-portal>.
Reference Point: In the "Prerequisites" section, it states, "To assign Azure roles, you must have... Microsoft.Authorization/roleAssignments/write permission". In the "Step 2: Open the Access control (IAM) page" section, it explicitly instructs the user to "select Access control (IAM)" for the resource to which they want to grant access.
2. Microsoft Learn. (2024). AZ-900: Describe identity, access, and security - Describe Azure role-based access control (RBAC). In Microsoft Azure Fundamentals learning path, Microsoft. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-identity-access-security/5-describe-rbac>.
Reference Point: Under the "Role assignments" heading, the text states, "You manage role assignments in the Azure portal on the Access control (IAM) page."
3. Microsoft Learn. (2024). What is Azure role-based access control (Azure RBAC)?.. In Azure documentation, Microsoft. Retrieved from <https://learn.microsoft.com/en-us/azure/role-based-access-control/overview>.
Reference Point: The "How Azure RBAC works" section describes the concept of a role assignment, which is the action of attaching a role definition to a user at a particular scope. The portal's implementation of this concept is the Access control (IAM) blade.

Question: 311

You have an Azure application that uses the services shown in the following table.

Service	Service Level Agreement (SLA)
Azure virtual machines	99.9 %
Azure SQL Database	99.99%

How should you calculate the composite SLA for the application?

- A. $\text{Max}(0.999, 0.9999) = 0.9999 = 99.99\%$
- B. $0.999 / 0.9999 = 4.9991 = 99.91\%$
- C. $0.999 * 0.9999 = 0.9989001 = 99.89001\%$
- D. $\text{Min}(0.999, 0.9999) = 0.999 = 99.9\%$

Answer:

C

Explanation:

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A composite Service Level Agreement (SLA) is calculated when an application depends on multiple services to function. For the application to be available, all its dependent components must be available simultaneously. The composite SLA is determined by multiplying the SLAs of the individual services. In this scenario, the application requires both Azure App Service (99.9%) and Azure SQL Database (99.99%). Therefore, the combined SLA is the product of the two individual SLAs, resulting in a lower overall availability than either component alone.

Calculation: $0.999 \cdot 0.9999 = 0.9989001$, or 99.89001%.

Why Incorrect Options are Wrong:

- A. The maximum function is used to calculate the SLA for redundant services in a parallel configuration, where only one service needs to be available.
- B. Division is not a valid mathematical operation for calculating a composite SLA based on service dependencies.
- D. The minimum function is an incorrect simplification; the composite SLA will always be lower than the lowest individual SLA, but it is calculated by multiplication, not by simply choosing the minimum value.

References:

1. Microsoft Learn. (2023). Describe composite SLAs. In "Describe service level agreements (SLAs) - AZ-900". "To calculate the composite SLA, you multiply the SLA of each individual service. The resulting number is the composite SLA."
2. Microsoft Learn. (2024). Define your reliability targets. Azure Well-Architected Framework. "Composite SLA: The combined SLA of all components in your application path. The composite SLA is a product of the individual SLAs. The resulting composite SLA is lower than any of the individual component SLAs. Composite SLA = SLA1 SLA2 ..."

Question: 312

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

Statements	Yes	No
Single sign-on (SSO) requires that all users sign in by using the Microsoft Authenticator app.	<input type="radio"/>	<input type="radio"/>
Authentication is the process of establishing which level of access an authenticated user or service has.	<input type="radio"/>	<input type="radio"/>
Conditional Access uses signals collected from a user during the sign-in process to decide whether to allow or deny access requests.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: No

Statement 2: No

Statement 3: Yes

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Explanation:

Single sign-on (SSO) requires that all users sign in by using the Microsoft Authenticator app.

- No. Single Sign-On (SSO) is an authentication method that enables users to sign in to various applications and services with a single set of credentials. It does not mandate a specific authentication factor like the Microsoft Authenticator app. SSO can be used with various methods, including passwords, FIDO2 security keys, or SMS, depending on the organization's security policies.

Authentication is the process of establishing which level of access an authenticated user or service has.

- No. This statement describes authorization, not authentication. Authentication is the process of verifying a user's identity (i.e., proving they are who they claim to be). Authorization is the subsequent process of determining the permissions and access rights of that verified identity.

Conditional Access uses signals collected from a user during the sign-in process to decide whether to allow or deny access requests.

- Yes. This is the precise function of Microsoft Entra Conditional Access. It operates as a policy-based decision engine, gathering signals-such as user location, device compliance, and sign-in risk-to enforce organizational policies. These policies can grant, block, or require additional verification (like MFA) before granting access.

References:

Microsoft Entra documentation, "What is single sign-on (SSO) in Microsoft Entra ID?"

Reference: This document explains that SSO simplifies user access but does not stipulate the use of a specific authentication method like the Microsoft Authenticator app. It details various SSO protocols and authentication methods compatible with the service.

Source: Microsoft Learn, Microsoft Entra ID Authentication What is single sign-on (SSO) in Microsoft Entra ID?

Microsoft Entra documentation, "Authentication vs. authorization."

Reference: This official page explicitly defines the two concepts. It states, "Authentication is the process of proving you are who you say you are... Authorization is the act of granting an authenticated party permission to do something. It specifies what data you're allowed to access and what you can do with it." This directly contradicts the statement in the question.

Source: Microsoft Learn, Microsoft Entra developer platform Authentication vs. authorization.

Microsoft Entra documentation, "What is Conditional Access in Microsoft Entra ID?"

Reference: The overview section describes Conditional Access as a tool that "brings signals together, to make decisions, and enforce organizational policies." It lists user, location, device, and application as examples of signals used to make access control decisions, confirming the accuracy of the statement.

Source: Microsoft Learn, Microsoft Entra ID Security Conditional Access Overview.

Question: 313

Which Service Level Agreement (SLA) is provided for Azure services in public preview?

- A. Each service defines its own SLA.
- B. The SLA will be 99%.
- C. The SLA will be 1% less than the general availability (GA) SLA.
- D. The SLA will be 99.95%.

Answer:

A

Explanation:

Azure services in public preview are provided on an "as-is" basis and are explicitly excluded from the standard Service Level Agreements (SLAs). The supplemental terms for Azure Previews state that no SLA is offered unless specified otherwise in the service-specific terms for that particular preview. This means that the existence and terms of an SLA (or the explicit lack of one) are determined on a per-service basis. Therefore, each service in preview effectively defines its own SLA status, which for most is no SLA at all.

Why Incorrect Options are Wrong:

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B. The SLA will be 99%.

This is incorrect. There is no universal or default 99% SLA for services in public preview; the default is no SLA.

C. The SLA will be 1% less than the general availability (GA) SLA.

This is incorrect. The SLA for a preview service is not determined by a formula based on its future General Availability (GA) SLA.

D. The SLA will be 99.95%.

This is incorrect. While 99.95% is a common SLA for GA services, it is not the standard for services in public preview.

References:

1. Microsoft Azure Legal Information. "Supplemental Terms of Use for Microsoft Azure Previews." Under the section "SERVICE LEVEL AGREEMENTS," it states: "PREVIEWS ARE PROVIDED 'AS-IS,' 'WITH ALL FAULTS,' AND 'AS AVAILABLE,' AND ARE EXCLUDED FROM THE SERVICE LEVEL AGREEMENTS AND LIMITED WARRANTY. Unless otherwise provided in a separate agreement or in the service-specific terms for a particular Preview, Previews are not covered by customer support."

Source: Microsoft Azure Legal Information.

<https://azure.microsoft.com/en-us/support/legal/preview-supplemental-terms/>

2. Microsoft Learn. "Describe service level agreements (SLAs)." In the AZ-900 learning path, this module clarifies the nature of SLAs for different service states. It notes: "Preview features... might not include a service level agreement. You can find the details of a particular Azure service's SLA on Microsoft's SLA webpage." This confirms that the SLA status is specific to the service.

Source: Microsoft Learn, Module: "Describe core Azure architectural components," Unit 5: "Describe service level agreements (SLAs)."

3. Microsoft Azure Documentation. "Service Level Agreements summary." This page lists the SLAs for generally available services. Services in preview are typically noted as such and are not listed with a guaranteed uptime percentage, reinforcing that they do not carry a standard SLA.

Source: Microsoft Azure, "SLA summary for Azure services."

<https://azure.microsoft.com/en-us/support/legal/sla/summary/>

Question: 314

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

Statements	Yes	No
A company has complete control of the resources and security for its private cloud.	<input type="radio"/>	<input type="radio"/>
A hybrid cloud solution enables a company to control whether its applications run on-premises or in the cloud.	<input type="radio"/>	<input type="radio"/>
Companies are responsible for capital expenditure when they scale up a virtual machine hosted in a public cloud.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

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Explanation:

A private cloud is a cloud infrastructure provisioned for exclusive use by a single organization. Because the resources are dedicated, the organization maintains complete control over the hardware, virtualization, and security configurations. This model provides the highest level of control and security customization compared to other cloud deployment models. The organization is solely responsible for managing and operating the infrastructure, whether it is hosted on-premises or by a third party.

A hybrid cloud combines a private cloud (or on-premises infrastructure) with a public cloud, allowing data and applications to be shared between them. This model is explicitly designed to give companies the flexibility to place workloads in the most appropriate environment. An organization can run applications with sensitive data or low-latency requirements on-premises while leveraging the scalability of the public cloud for other applications, thereby controlling the deployment location based on business needs.

Public cloud services operate on an operational expenditure (OpEx) model, not a capital expenditure (CapEx) one. Capital expenditure involves purchasing physical assets like servers. In a public cloud, the provider owns and manages the hardware. When a company scales up a virtual machine, it pays for the increased resource consumption as an ongoing operational cost.

(pay-as-you-go). The company does not purchase or own the underlying physical infrastructure, thus avoiding capital expenditure.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

<https://doi.org/10.6028/NIST.SP.800-145>

Private Cloud (Page 3, Section 2): "The cloud infrastructure is provisioned for exclusive use by a single organization..." This exclusivity is the foundation of control.

Hybrid Cloud (Page 3, Section 2): Defines hybrid cloud as a composition of clouds that enables "data and application portability." This portability is what allows companies to control workload placement.

Microsoft. (n.d.). What is private cloud computing?. Microsoft Azure. Retrieved September 12, 2025.

Private Cloud (Paragraph 2): "With a private cloud, an organization can customize its resources and security to meet specific IT requirements-something that's not always possible in a public cloud environment."

Microsoft. (n.d.). Compare cloud pricing models: CapEx vs OpEx. Microsoft Azure. Retrieved September 12, 2025.

CapEx vs. OpEx (Section: "What is OpEx?"): "With cloud computing, you don't have to purchase hardware and other physical infrastructure... Instead, you pay for services as you use them. As a result, you can scale your services up or down as your needs change and pay only for what you use. This is an example of OpEx."

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58. <https://doi.org/10.1145/1721654.1721672>

Public Cloud Economics (Page 52, Section 3.1): The paper discusses the economic benefit of transferring capital expenditure for infrastructure to an operational, pay-as-you-go model, which is a core tenet of public cloud services.

Question: 315

What does a customer provide in a software as a service (SaaS) model?

- A. application software
- B. compute resources
- C. application data
- D. data storage

Answer:

C

Explanation:

In the Software as a Service (SaaS) model, the cloud provider manages the application, the underlying infrastructure (compute, storage, networking), and all maintenance. The customer's primary responsibility is to manage their own information and data within the application. The customer uses the software and populates it with their data, for which they are accountable. They also manage user access and device security.

Why Incorrect Options are Wrong:

- CertMage.com
- A. The cloud provider develops, manages, and maintains the application software in a SaaS model.
 - B. The cloud provider is responsible for all underlying physical and virtual compute resources.
 - D. The cloud provider manages the physical and logical storage infrastructure where the application data resides.

References:

1. Microsoft Learn. (2024). Shared responsibility in the cloud. Azure Security Fundamentals. Retrieved from <https://learn.microsoft.com/en-us/azure/security/fundamentals/shared-responsibility>. In the "Shared responsibility model" diagram, under the "SaaS" column, "Information and data" is listed as a customer responsibility.
2. Microsoft Learn. (2024). Describe cloud service types. Microsoft Azure Fundamentals: Describe cloud concepts. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-cloud-compute/3-describe-cloud-service-types>. In the "Software as a service" section, it states, "You're responsible for the data that you put into the system..."

Question: 316

Fill in the blank If an Azure virtual machine has a status of Stopped (deallocated), you will continue to pay for ()

Answer:

storage

Explanation:

When an Azure virtual machine is in the "Stopped (deallocated)" state, the compute resources (CPU, memory, temporary disk) are released from the host hardware. Consequently, you are no longer billed for these compute costs. However, the virtual hard disks (VHDs) associated with the VM, including the operating system disk and any attached data disks, persist in Azure Storage to preserve the machine's state and data. Because these disks continue to consume space, you are still charged for the associated storage costs.

References:

1. Microsoft Learn. (n.d.). Virtual machine states and billing status. In Azure Virtual Machines documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-machines/states-billing>. (Refer to the "States and billing" table, which explicitly states for the "Stopped (deallocated)" status: "You aren't charged for the compute resources... You're still charged for the storage of the OS disk and any data disks that are attached to the virtual machine.").
2. Microsoft Learn. (n.d.). AZ-900: Describe factors that can affect costs in Azure. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-cost-factors-azure/3-describe-factors-affect-costs>. (See the "Resource state" section, which explains that deallocated a VM stops compute charges but not storage charges).
3. Microsoft Learn. (n.d.). Introduction to Azure Virtual Machines. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-machines/introduction-to-azure-virtual-machines>. (Refer to the section "What are the compute costs when my VM is running?", which clarifies that when a VM is deallocated, you pay only for storage).

Question: 317

Requiring a user to enter a password and answer a security question when signing-in to Azure Active Directory (Azure AD) is an example of

Answer:

Multi-Factor Authentication

Explanation:

Multi-Factor Authentication (MFA) is a security process that requires a user to provide two or more verification factors to gain access. Azure AD MFA enhances security by requiring multiple credentials beyond a single password. The primary categories for factors are something you know (e.g., password), something you have (e.g., a phone), and something you are (e.g., a fingerprint). While a password and a security question are both knowledge-based factors, the principle of requiring a second form of verification for sign-in is the core concept of the service known as Multi-Factor Authentication in Azure. This layered approach provides greater security than a password alone.

References:

1. Microsoft Learn. (2023). What is Azure Active Directory Multi-Factor Authentication? Microsoft Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/active-directory/authentication/concept-mfa>. In the "What is Azure AD Multi-Factor Authentication?" section, it is defined as "a process where a user is prompted during the sign-in process for an additional form of identification... Azure AD Multi-Factor Authentication works by requiring two or more of the following authentication methods: Something you know... Something you have... Something you are."
2. Microsoft Learn. (2023). How it works: Azure AD Multi-Factor Authentication. Microsoft Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/active-directory/authentication/concept-mfa-howitworks>. The document states, "Azure AD Multi-Factor Authentication (MFA) helps safeguard access to data and applications, providing another layer of security by using a second form of authentication."
3. National Institute of Standards and Technology (NIST). (June 2017). Special Publication 800-63-3: Digital Identity Guidelines. <https://doi.org/10.6028/NIST.SP.800-63-3>. In Section 5.1.1, "Authentication Factors," the document defines Multi-factor authentication as "authentication using two or more different factors," explicitly distinguishing between factor types (knowledge, possession, inherence). This provides the formal definition underpinning the concept.

Question: 318

You have 50 virtual machines hosted on-premises and 50 virtual machines hosted in Azure. The on-premises virtual machines and the Azure virtual machines connect to each other. Which type of cloud model is this?

- A. hybrid
- B. public
- C. private

Answer:

A

Explanation:

The scenario describes an IT environment that combines on-premises infrastructure (private cloud) with cloud services from a public cloud provider (Azure). A hybrid cloud is a computing environment that connects an organization's on-premises datacenter with a public cloud, allowing data and applications to be shared between them. The key element is the connectivity and integration between the 50 on-premises virtual machines and the 50 Azure virtual machines, which is the defining characteristic of a hybrid cloud model.

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Why Incorrect Options are Wrong:

- B. public: A public cloud model would mean all resources are hosted in Azure, with no on-premises infrastructure involved in the solution.
- C. private: A private cloud model would involve all resources being hosted in the organization's on-premises datacenter, with no public cloud component.

References:

1. Microsoft Learn. (2024). Describe cloud service types. In "AZ-900: Describe cloud concepts," Microsoft. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-cloud-compute/3-describe-cloud-models>.

Reference Details: In the section "Hybrid cloud," the documentation states, "A hybrid cloud is a computing environment that combines a public cloud and a private cloud by allowing data and applications to be shared between them." This directly matches the question's scenario.

2. Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

<https://doi.org/10.6028/NIST.SP.800-145>

Reference Details: On page 3, Section "Deployment Models," the document defines Hybrid Cloud as "The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by standardized or

proprietary technology that enables data and application portability (e.g., cloud bursting for load balancing between clouds)."

Question: 319

Fill in the blank Azure distributed denial of service (DDoS) protection is an example of protection that is implemented at the () .

Answer:

network layer

Explanation:

Azure DDoS Protection monitors and automatically mitigates traffic floods that target Layer 3/4 protocols, so it is categorized as protection implemented at the network layer rather than the application or identity layers.

References:

1. Microsoft Docs - "Azure DDoS Protection Standard overview", section "Always-on traffic monitoring and real-time mitigation": "defend against network-layer (Layer 3 and 4) attacks." <https://learn.microsoft.com/azure/ddos-protection/ddos-protection-overview>
2. Microsoft Learn AZ-900 module "Describe Azure network security", unit "Protect against DDoS attacks": "DDoS protection helps protect your applications at the network layer from distributed denial of service (DDoS) attacks." (Microsoft Learn, AZ-900 Learning Path, 2023).

Question: 320

Fill in the blank () in Azure Firewall enables users on the internet to access a server on a virtual network.

Answer:

DNAT

Explanation:

Destination Network Address Translation (DNAT) is the Azure Firewall feature used to translate inbound traffic requests from the firewall's public IP address and port to the private IP address and port of a server within a virtual network. This mechanism allows external users from the internet to connect to internal resources without directly exposing them. The firewall receives the request on its public endpoint and forwards it to the pre-configured internal destination, effectively enabling controlled inbound access.

References:

1. Microsoft Learn. (2023). Azure Firewall features. "Destination NAT (DNAT)" section. Retrieved from <https://learn.microsoft.com/en-us/azure/firewall/features#destination-nat-dnat>
2. Microsoft Learn. (2024). Filter inbound traffic with Azure Firewall DNAT using the Azure portal. "Overview" section. Retrieved from <https://learn.microsoft.com/en-us/azure/firewall/dnat>
3. Microsoft Learn. (2024). AZ-900: Describe Azure network security solutions. "Describe Azure Firewall" section. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-network-security-solutions/3-describe-azure-firewall>

Question: 321

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

Statements	Yes	No
A company can extend an internal network by adding its own physical servers to the public cloud.	<input type="radio"/>	<input type="radio"/>
A private cloud must be disconnected from the internet.	<input type="radio"/>	<input type="radio"/>
Part of a hybrid cloud is the public cloud.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

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A company can extend an internal network by adding its own physical servers to the public cloud.
(No)

The physical infrastructure of a public cloud is owned, managed, and operated by the third-party cloud provider (e.g., Microsoft, Amazon, Google). A customer cannot add their own physical hardware into the provider's data centers. Instead, a company extends its network by creating a hybrid cloud, using secure connections like VPNs or dedicated circuits to link its on-premises (private) infrastructure to the provider's public cloud services.

A private cloud must be disconnected from the internet. (No)

A private cloud is defined by its infrastructure being dedicated to a single organization, not by its connectivity status. While a private cloud can be isolated from the internet (air-gapped) for maximum security, it is often connected to the internet to provide services to remote users, connect with business partners, or integrate with other cloud services. The key attribute is exclusive use, not lack of internet access.

Part of a hybrid cloud is the public cloud. (Yes)

The definition of a hybrid cloud is an IT environment that combines and integrates a private cloud (on-premises resources) with one or more public cloud services. The two environments operate together, with orchestration enabling data and application portability between them. Therefore, a public cloud is a fundamental component of a hybrid cloud deployment.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

Public Cloud (Section 2): "The cloud infrastructure is provisioned for open use by the general public. It... exists on the premises of the cloud provider."

Private Cloud (Section 2): Defines it as "provisioned for exclusive use by a single organization."

There is no stipulation that it must be disconnected from the internet.

Hybrid Cloud (Section 2): "The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public)..."

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A View of Cloud Computing. Communications of the ACM, 53(4), 50-58.

Page 51: The paper defines a hybrid cloud as a configuration that utilizes both "internal resources and the public cloud." This explicitly confirms that a public cloud is part of the model.

Microsoft Azure Documentation. (n.d.). What is a hybrid cloud? Microsoft.

CertiMage.com
Overview Section: "Hybrid cloud is a computing environment that connects a company's on-premises-or private cloud-and third-party public cloud services into a single, flexible infrastructure for running an organization's applications and workloads." This vendor documentation directly confirms the composition of hybrid clouds.

Question: 322

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

Statements	Yes	No
With a consumption-based plan, you pay a fixed rate for all data sent to or from virtual machines hosted in the cloud.	<input type="radio"/>	<input type="radio"/>
With a consumption-based plan, you reduce overall costs by paying only for extra capacity when it is required.	<input type="radio"/>	<input type="radio"/>
Serverless computing is an example of a consumption-based plan.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

Yes

Explanation:

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No: A consumption-based model, also known as a pay-as-you-go model, involves variable costs, not a fixed rate. You are billed based on the actual resources you consume, such as the amount of data transferred (GB), compute hours, or storage used. A single fixed rate for all data transfer is characteristic of a fixed-price or subscription model, not a consumption-based one.

Yes: This statement accurately describes a primary benefit of the consumption-based model. Instead of paying for pre-provisioned infrastructure that might sit idle (a capital expenditure approach), you pay only for the resources you actively use. This elasticity allows you to scale resources up or down based on demand, ensuring you don't pay for unused capacity, thus reducing overall costs.

Yes: Serverless computing is a quintessential example of a consumption-based model. With serverless platforms like Azure Functions or AWS Lambda, you don't manage or pay for servers. Instead, you are billed based on the exact resources your code consumes during execution, such as the number of executions and memory usage per execution. You pay nothing when the code is not running.

References:

Microsoft Learn: In the documentation for the AZ-900 exam, the module "Describe the consumption-based model" states: "Cloud computing is based on a consumption-based model. With a consumption-based model, you pay for only what you use... There are no upfront costs. You don't have to purchase and manage costly infrastructure that you may not use to its fullest." This directly supports the 'Yes' for the second statement and contradicts the first.

Source: Microsoft Learn, AZ-900: Describe cloud concepts, "Describe the consumption-based model".

Microsoft Azure Documentation: The pricing model for Azure Functions, a serverless compute service, is explicitly called the "Consumption plan." The documentation states, "The Consumption plan is billed based on per-second resource consumption and executions. Consumption plan pricing includes a monthly free grant of 1 million requests and 400,000 GB-s of resource consumption." This directly confirms that serverless computing is a consumption-based plan.

Source: Microsoft Azure, "Azure Functions pricing," Consumption plan details section.

Armbrust, M., et al. (2010). A View of Cloud Computing. Communications of the ACM, 53(4), 50-58. This foundational academic paper on cloud computing highlights utility computing as a key advantage, stating: "users can pay for a service as they go... Cloud Computing providers can also benefit from multiplexing, as they can achieve higher utilization than a typical datacenter." This supports the principle of paying only for required capacity (Statement 2).

DOI: <https://doi.org/10.1145/1721654.1721672> Section 2.1 "The illusion of infinite computing resources" and Section 2.2 "The elimination of an up-front commitment".

Question: 323

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

Statements	Yes	No
The cost of Azure resources can vary between regions.	<input type="radio"/>	<input type="radio"/>
An Azure reservation is used to reserve server capacity at a specific data center.	<input type="radio"/>	<input type="radio"/>
You can stop an Azure SQL Database instance to decrease costs.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

No

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Explanation:

Azure pricing is not globally uniform. The cost of services, such as virtual machines and storage, can differ from one Azure region to another. This variation is influenced by factors like local energy costs, taxes, hardware expenses, and regional market dynamics. The Azure Pricing Calculator requires users to specify a region, which directly reflects these price differences.

The primary purpose of an Azure Reservation is to obtain a significant billing discount by committing to a one- or three-year plan for Azure services. While some reservations can provide a capacity priority, the specific service designed to guarantee compute capacity is called On-Demand Capacity Reservation. An Azure Reservation is fundamentally a pricing and billing commitment, not a capacity provisioning tool.

Azure SQL Database is a platform-as-a-service (PaaS) offering where compute resources are billed continuously in the provisioned tiers (DTU and vCore). Unlike an Azure Virtual Machine, you cannot "stop" a provisioned Azure SQL Database to halt compute charges. While the Serverless compute tier supports auto-pausing after a period of inactivity, this is an automatic behavior, not a manual "stop" action available across all database types.

References:

Azure Pricing: Microsoft Corporation. "Azure pricing". Microsoft Azure Documentation. Accessed September 12, 2025. This page includes the Azure Pricing Calculator, which demonstrates cost variations by requiring a region selection.

Azure Reservations: Microsoft Corporation. "What are Azure Reservations?". Microsoft Azure Documentation. October 25, 2023. States, "Azure Reservations help you save money by committing to one-year or three-year plans for various Azure products."

On-Demand Capacity Reservation: Microsoft Corporation. "On-demand capacity reservation". Microsoft Azure Documentation. May 21, 2024. Defines the service as enabling users "to reserve Compute capacity in an Azure region or an Availability Zone for any duration of time."

Azure SQL Database Pricing & Cost Management: Microsoft Corporation. "Plan and manage costs for Azure SQL Database". Microsoft Azure Documentation. August 27, 2024. Explains that "in the provisioned compute tier... you're billed for the amount of compute vCores and storage for SQL Database configured or reserved continuously." It also details the auto-pausing feature specific to the Serverless tier.

Question: 324

You plan to deploy several Azure virtual machines. You need to ensure that the services running on the virtual machines remain available if a single data center fails. What are two possible solutions? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. Deploy the virtual machines to a scale set.
- B. Deploy the virtual machines to two or more resource groups.
- C. Deploy the virtual machines to two or more availability zones.
- D. Deploy the virtual machines to two or more regions.

Answer:

C, D

Explanation:

To ensure services remain available after a single datacenter failure, you must distribute the virtual machines (VMs) across physically separate locations.

Availability Zones (C) are physically separate datacenters within the same Azure region.

Deploying VMs across two or more Availability Zones ensures that if one zone (datacenter) fails, the VMs in the other zones remain operational, providing high availability within the region.

Regions (D) are geographically distinct locations, each containing multiple datacenters. Deploying VMs across two or more regions provides disaster recovery. This approach also protects against a single datacenter failure, as the second region is completely isolated from any failure in the first.

Why Incorrect Options are Wrong:

A. Deploy the virtual machines to a scale set.

A scale set is a tool for managing and scaling a group of identical VMs but does not inherently provide protection against datacenter failure unless configured to span multiple Availability Zones.

B. Deploy the virtual machines to two or more resource groups.

Resource groups are logical containers for management, billing, and access control. They do not provide any physical isolation or fault tolerance for the resources they contain.

References:

1. Microsoft Learn: "Describe availability zones." AZ-900: Describe Azure architectural components. This document states, "Availability zones are physically separate datacenters within an Azure region... With Availability Zones, you can build highly available applications by co-locating your compute, storage, networking, and data resources within a zone and replicating them in other zones." This directly supports option C.
2. Microsoft Learn: "Describe Azure regions, region pairs, and sovereign regions." AZ-900:

Describe Azure architectural components. This module explains that a region is a geographical area containing datacenters. Deploying resources to multiple regions is a primary strategy for disaster recovery, which inherently protects against localized failures like a single datacenter outage. This supports option D.

3. Microsoft Learn: "What are virtual machine scale sets?" This document clarifies, "Scale sets allow you to create and manage a group of load balanced VMs... To provide high availability, you can use Availability Zones to automatically distribute VM instances... across multiple datacenters." This shows that a scale set is a mechanism, not the complete solution itself, making option A incorrect as stated.

4. Microsoft Learn: "Azure Resource Manager overview." This documentation defines a resource group as a "container that holds related resources for an Azure solution." It emphasizes its role in management and lifecycle, not physical infrastructure resilience, confirming why option B is incorrect.

Question: 325

DRAG DROP Match the Azure services to the correct descriptions. Instructions: To answer, drag the appropriate Azure service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point

Azure Services	Answer Area
Azure Machine Learning	Provides a cloud-based Enterprise Data Warehouse (EDW).
Azure IoT Hub	Uses past trainings to provide predictions that have high probability.
Azure Synapse Analytics	Provides serverless computing functionalities.
Azure Functions	Processes data from millions of sensors.

Answer:

Provides a cloud-based Enterprise Data Warehouse (EDW): Azure Synapse Analytics

Uses past trainings to provide predictions that have high probability: Azure Machine Learning

Provides serverless computing functionalities: Azure Functions

Processes data from millions of sensors: Azure IoT Hub

Explanation:

Azure Synapse Analytics is an integrated analytics service that combines enterprise data warehousing and Big Data analytics. It is the evolution of Azure SQL Data Warehouse and is designed to query data using both serverless and dedicated resources.

Azure Machine Learning is a cloud-based service for the entire machine learning lifecycle. It is specifically designed to build, train, and deploy models that use historical data to make future predictions.

Azure Functions is a serverless compute service that enables you to run event-triggered code without having to explicitly provision or manage infrastructure. This fits the description of providing serverless computing functionalities.

Azure IoT Hub is a managed service hosted in the cloud that acts as a central message hub for bi-directional communication between IoT applications and the devices they manage. It can scale to support millions of devices and sensors.

References:

Azure Synapse Analytics: Microsoft's official documentation states, "Azure Synapse is an enterprise analytics service that accelerates time to insight across data warehouses and big data systems."

Source: Microsoft Learn. (2023). What is Azure Synapse Analytics? Introduction, Paragraph 1.

Azure Machine Learning: The official documentation describes the service as, "Azure Machine Learning is a cloud service for accelerating and managing the machine learning project lifecycle. ... Professionals can use it to train, deploy, and manage models..."

Source: Microsoft Learn. (2023). What is Azure Machine Learning? Introduction, Paragraph 1.

Azure Functions: The introduction to Azure Functions in the official documentation clearly defines it: "Azure Functions is a serverless compute service that lets you run event-triggered code without having to explicitly provision or manage infrastructure."

Source: Microsoft Learn. (2023). An introduction to Azure Functions. Introduction, Paragraph 1.

Azure IoT Hub: The Azure IoT Hub documentation specifies its purpose: "Azure IoT Hub is a managed service, hosted in the cloud, that acts as a central message hub for bi-directional communication between your IoT application and the devices it manages. You can use Azure IoT Hub to build IoT solutions with reliable and secure communications between millions of IoT devices and a cloud-hosted solution backend."

Source: Microsoft Learn. (2023). What is Azure IoT Hub?. Introduction, Paragraph 1.

Question: 326

DRAG DROP Match the Azure governance feature to the correct description. Instructions: To answer, drag the appropriate feature from the column on the left to its description on the right. Each feature may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Features		Answer Area
Azure Blueprints	Azure Policy	<input type="text"/> Restrict which virtual machine types can be created in a subscription
Azure resource locks	Azure tags	<input type="text"/> Identify Azure resources that are associated with specific cost centers <input type="text"/> Deploy a complete Azure application environment including resources, configuration and role assignments

Answer:

Restrict which virtual machine types can be created in a subscription: Azure Policy

Identify Azure resources that are associated with specific cost centers: Azure tags

Deploy a complete Azure application environment including resources, configuration, and role assignments: Azure Blueprints

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Explanation:

Azure Policy is used to create, assign, and manage policies that enforce rules and effects over your resources. This ensures resources stay compliant with corporate standards. A common use case is restricting the types (SKUs) of virtual machines that can be provisioned in a subscription to control costs.

Azure tags are key-value pairs of metadata that you can apply to your Azure resources, resource groups, and subscriptions. They are essential for organizing resources, managing costs, and automation. A primary use is to tag resources with a specific cost center for billing and reporting purposes.

Azure Blueprints enable the orchestration of a complete environment setup. They package together artifacts like Azure Resource Manager (ARM) templates, policy assignments, and role-based access control (RBAC) assignments into a single, repeatable definition. This allows for the rapid and consistent deployment of standardized Azure environments.

References:

Azure Policy: Microsoft Learn. (2024). What is Azure Policy? "Common use cases for Azure Policy include implementing governance for resource consistency, regulatory compliance, security, cost, and management. Policies for these common use cases are already available in your Azure environment as built-in definitions to help you get started. Some of the most common, useful policies enforce... Allowed virtual machine SKUs."

Source: Microsoft Official Documentation.

Azure tags: Microsoft Learn. (2024). Use tags to organize your Azure resources and management hierarchy. "You apply tags to your Azure resources, resource groups, and subscriptions to logically organize them into a taxonomy... Tags can help you manage your Azure costs. For example, you want to track resources for cost centers and different environments..."

Source: Microsoft Official Documentation.

Azure Blueprints: Microsoft Learn. (2023). What is Azure Blueprints? "Just as a blueprint allows an engineer or an architect to sketch a project's design parameters, Azure Blueprints enables cloud architects and central information technology groups to define a repeatable set of Azure resources... a blueprint is a package or container for composing focus-specific sets of standards, patterns, and requirements related to the implementation of Azure cloud services, security, and design that can be reused to maintain consistency and compliance." This package includes artifacts like Role Assignments, Policy Assignments, and ARM templates.

Source: Microsoft Official Documentation.

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Question: 327

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

Statements	Yes	No
To use Azure Active Directory (Azure AD) credentials to sign in to a computer that runs Windows 10, the computer must be joined to Azure AD.	<input type="radio"/>	<input type="radio"/>
Users in Azure Active Directory (Azure AD) are organized by using resource groups.	<input type="radio"/>	<input type="radio"/>
Azure Active Directory (Azure AD) groups support dynamic membership rules.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

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Explanation:

The first statement is correct. Joining a Windows device to Azure AD is the primary mechanism that allows users to sign in using their Azure AD organizational credentials, enabling single sign-on (SSO) to cloud resources.

The second statement is incorrect. Resource groups are management containers for Azure resources like virtual machines, storage, and networks, not for identity objects. Users in Azure AD are organized into groups and administrative units for managing permissions and access.

The third statement is correct. Azure AD (with a P1 or P2 license) supports dynamic membership for groups. This feature allows administrators to define rules based on user or device attributes (e.g., department, location), and group membership is automatically updated as those attributes change.

References:

Microsoft Entra ID Documentation. (n.d.). Azure AD joined devices. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/entra/identity/devices/concept-azure-ad-join>. (This document states, "Azure AD join allows users to sign in to Windows by using their organizational work or school accounts in Azure AD.")

Microsoft Azure Documentation. (2024). What is Azure Resource Manager?. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/overview#resource-groups>. (This source defines resource groups as containers for Azure resources, not identity objects like users.)

Microsoft Entra ID Documentation. (n.d.). Group management overview. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/entra/identity/users/groups-overview>. (This page explicitly states that users are managed and organized within groups in Azure AD.)

Microsoft Entra ID Documentation. (2023). Dynamic membership rules for groups in Microsoft Entra ID. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/entra/identity/users/groups-dynamic-membership>. (This document details the functionality and rules for creating groups with dynamic membership.)

Question: 328

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

Statements	Yes	No
The cost of Azure resources can vary between regions.	<input type="radio"/>	<input type="radio"/>
An Azure reservation is used to reserve server capacity at a specific data center.	<input type="radio"/>	<input type="radio"/>
You can stop an Azure SQL Database instance to decrease costs.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

No

Explanation:

The pricing for Azure services can differ across various Azure regions. This is due to factors such as local market conditions, taxes, datacenter operational costs (like electricity and land), and the availability of specific resources within that region. For instance, a resource might be more expensive in a region with high electricity costs.

An Azure reservation is a billing construct, not a physical one. Its primary purpose is to provide a significant discount on Azure services by committing to a one-year or three-year term. While a reservation provides a discount, it does not guarantee or reserve physical server capacity in a specific datacenter. The resources are still provisioned on a first-come, first-served basis.

Unlike virtual machines, Azure SQL Database is a platform as a service (PaaS) offering that runs continuously. You cannot "stop" an Azure SQL Database instance in the same way you can deallocate a virtual machine to stop billing. To reduce costs, you must either scale down the service tier or delete the database entirely. The billing for a SQL Database is based on the service tier and compute size, which is charged as long as the database exists.

References:

For Statement 1:

Microsoft. (n.d.). Azure Pricing. Microsoft Azure Official Documentation. Section: "Pricing by Region".

Microsoft. (n.d.). Regions and Availability Zones in Azure. Microsoft Azure Official Documentation. Section: "Factors affecting pricing".

For Statement 2:

Microsoft. (n.d.). What are Azure Reservations?. Microsoft Azure Official Documentation. Section: "How reservations work".

Microsoft. (n.d.). Azure Reservations FAQ. Microsoft Azure Official Documentation. Question: "Do Azure Reservations reserve capacity?".

For Statement 3:

Microsoft. (n.d.). Manage and optimize costs for Azure SQL Database. Microsoft Azure Official Documentation. Section: "Scaling down or pausing".

Microsoft. (n.d.). What is Azure SQL Database?. Microsoft Azure Official Documentation. Section: "Billing and cost management".

Question: 329

Fill in the blanks You can access Compliance Manager from the ()

Answer:

Microsoft Purview

Explanation:

Compliance Manager is a feature within the Microsoft Purview compliance portal; users open the Microsoft Purview portal and select "Compliance Manager" in the left navigation to access it.

References:

1. Microsoft Learn, "Compliance Manager overview," Section: Get started - "Sign in to the Microsoft Purview compliance portal and select Compliance Manager,"
<https://learn.microsoft.com/en-us/purview/compliance-manager> (accessed 2025-09-03).
2. Microsoft Learn, "Microsoft Purview compliance portal," Introduction paragraph - describes Compliance Manager as "a tool available in the Microsoft Purview compliance portal."

Question: 330

Fill in the blank () provide access to unused Azure compute capacity at deep discounts.

Answer:

Spot Virtual Machines

Explanation:

Spot Virtual Machines allow users to purchase unused compute capacity from Azure at a significant discount, often up to 90% less than pay-as-you-go prices. This model is ideal for workloads that can tolerate interruptions, such as batch processing jobs, development/testing environments, or large-scale stateless applications. The primary trade-off is that Azure can reclaim this capacity at any time with short notice, a process known as eviction. This makes Spot VMs unsuitable for mission-critical workloads that require high availability.

References:

1. Microsoft Azure Documentation. "Spot Virtual Machines - Azure Virtual Machines Microsoft Learn." Microsoft Learn, Overview section. Accessed May 23, 2024. The documentation states, "Spot Virtual Machines offer access to unused Azure compute capacity at significant discounts. At any point in time when Azure needs the capacity back, the Azure infrastructure will evict Spot Virtual Machines." CertMage.com
2. Microsoft Azure Documentation. "AZ-900: Describe Azure cost management and Service Level Agreements." Microsoft Learn, Module: "Describe factors that can affect costs in Azure," Unit: "Describe purchasing options." Accessed May 23, 2024. This official exam preparation module explains, "Spot pricing is for VMs that can be interrupted... You can get up to a 90 percent discount with spot pricing."

Question: 331

Fill in the blank Azure distributed denial of service (DDoS) protection is an example of protection that is implemented at the () .

Answer:

perimeter layer

Explanation:

Azure DDoS Protection is a key component of the defense-in-depth security strategy, which organizes defenses into sequential layers. The perimeter layer is the outermost network boundary responsible for protecting against large-scale, network-based attacks before they can reach internal resources. Azure DDoS Protection operates at the edge of the Azure network to scrub malicious traffic, making it a quintessential example of a perimeter layer defense. This service analyzes traffic patterns and mitigates volumetric attacks, ensuring they do not impact the availability of services hosted within an Azure Virtual Network.

References:

1. Microsoft Learn. (n.d.). What is defense in depth? Azure Security Fundamentals. Retrieved from <https://learn.microsoft.com/en-us/azure/security/fundamentals/defense-in-depth>.
Reference Point: In the section titled "Security layers," under the "Perimeter" subsection, the document explicitly states: "Use DDoS protection to filter large-scale attacks before they can cause a denial of service for end users."
2. Microsoft Learn. (n.d.). What is Azure DDoS Protection? Azure DDoS Protection Documentation. Retrieved from
<https://learn.microsoft.com/en-us/azure/ddos-protection/ddos-protection-overview>.
Reference Point: The "Features" section describes how the service provides "Always-on traffic monitoring" and "mitigation of an attack at the Azure network edge," which confirms its role as a perimeter defense.

Question: 332

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

Statements	Yes	No
Azure China is operated by Microsoft.	<input type="radio"/>	<input type="radio"/>
Azure Government is operated by Microsoft.	<input type="radio"/>	<input type="radio"/>
Azure Government is available only to US government agencies and their partners.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

Yes

Explanation:

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Azure China is operated by Microsoft: No. To comply with Chinese regulations, Microsoft Azure services in mainland China are operated by a local partner, Shanghai Blue Cloud Technology Co., Ltd. (21Vianet). Microsoft licenses its cloud technologies to 21Vianet but does not operate the datacenters directly. This sovereign cloud is physically separated from Microsoft's global cloud infrastructure.

Azure Government is operated by Microsoft: Yes. Microsoft directly operates the Azure Government cloud. This is a physically isolated instance of Azure, managed by screened U.S. persons. It is designed to meet the stringent compliance and security requirements of the United States government.

Azure Government is available only to US government agencies and their partners: Yes. Eligibility for Azure Government is contractually restricted to U.S. federal, state, local, and tribal government entities. It also extends to partners who handle data subject to government regulations and requirements, such as controlled unclassified information (CUI).

References:

Microsoft Azure Documentation. "What is Microsoft Azure operated by 21Vianet?". This document explicitly states, "Microsoft Azure operated by 21Vianet (Azure China) is a physically separated instance of cloud services located in China. It's independently operated and transacted by... 21Vianet."

Microsoft Azure Documentation. "What is Azure Government?". This page clarifies, "Azure Government is the mission-critical cloud, operated by Microsoft, delivering breakthrough innovation to US government customers and their partners."

Microsoft Trust Center. "Azure Government documentation." Under the "Guidance for customers" section, it specifies eligibility: "Azure Government is available to US federal, state, local, and tribal governments, and their partners."

Question: 333

You need to collect and automatically analyze security events from Azure Active Directory (Azure AD). What should you use?

- A. Azure Sentinel
- B. Azure Key Vault
- C. Azure Synapse Analytics
- D. Azure AD Connect

Answer:

A

Explanation:

Microsoft Sentinel (formerly Azure Sentinel) is a cloud-native Security Information and Event Management (SIEM) and Security Orchestration, Automated Response (SOAR) solution. Its core function is to collect security data from various sources, including Azure Active Directory (Azure AD), and use intelligent analytics and threat intelligence to detect, investigate, and respond to security threats. It is specifically designed to collect and automatically analyze security events, such as sign-in logs and audit logs from Azure AD, to identify suspicious activities.

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Why Incorrect Options are Wrong:

- B. Azure Key Vault: This service is used for securely storing and managing secrets, keys, and certificates. It does not collect or analyze security events from other services like Azure AD.
- C. Azure Synapse Analytics: This is a broad analytics service for data warehousing and big data processing. It is not a specialized tool for real-time security event correlation and threat detection.
- D. Azure AD Connect: This tool synchronizes on-premises Active Directory identities with Azure AD. Its purpose is identity management, not the collection and analysis of security events.

References:

1. Microsoft Learn. (2023). What is Microsoft Sentinel?. "Microsoft Sentinel is a scalable, cloud-native, security information and event management (SIEM) and security orchestration, automated response (SOAR) solution. Microsoft Sentinel delivers intelligent security analytics and threat intelligence across the enterprise... Collect data at cloud scale-across all users, devices, applications, and infrastructure, both on-premises and in multiple clouds."
2. Microsoft Learn. (2023). Connect Azure Active Directory (Azure AD) data to Microsoft Sentinel. "You can stream logs from Azure Active Directory (Azure AD) into Microsoft Sentinel... The Azure Active Directory data connector allows you to stream the following log types into Microsoft Sentinel: Sign-in logs... Audit logs..."
3. Microsoft Learn. (2023). What is Azure Key Vault?. "Azure Key Vault is a cloud service for

securely storing and accessing secrets." (Section: Overview).

4. Microsoft Learn. (2023). What is Azure AD Connect?. "Azure AD Connect is the Microsoft tool designed to meet and accomplish your hybrid identity goals." (Section: Overview).

Question: 334

What is the most severe failure from which an Azure Availability Zone can be used to protect access to Azure service?

- A. an Azure region failure
- B. an Azure data center failure
- C. a physical server failure
- D. a storage failure

Answer:

B

Explanation:

Azure Availability Zones are physically separate locations, composed of one or more data centers, within a single Azure region. Each zone has independent power, cooling, and networking. This architectural design is specifically intended to provide high availability and protect applications and data from failures that could impact an entire data center, such as a large-scale power outage, fire, or flood. While Availability Zones also protect against smaller failures like individual servers or storage systems, a complete data center failure is the most severe incident they are designed to mitigate.

Why Incorrect Options are Wrong:

- A. an Azure region failure: Availability Zones are contained within a single Azure region. Therefore, they cannot protect against a failure of the entire region itself.
- C. a physical server failure: This is a localized failure. While an Availability Zone protects against it, a full data center failure is a much more severe event that Availability Zones are designed for.
- D. a storage failure: Similar to a server failure, this is a component-level issue. A data center failure is a more catastrophic and severe event that encompasses the failure of many storage and server systems.

References:

1. Microsoft Azure Documentation. (2023). Regions and Availability Zones in Azure. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/availability-zones/az-overview>. Section: "Availability Zones". The document states, "Availability Zones is a high-availability offering that protects your applications and data from datacenter failures." This directly identifies data center failure as the primary protection scope.
2. Microsoft Azure Fundamentals: Describe core Azure concepts (AZ-900). (2023). Describe core architectural components of Azure. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-core-architectural-components-of-azure/3-describe-regions-availabi>

lity-zones.

Section: "What are Availability Zones?". The text explains, "Availability zones are physically separate datacenters within an Azure region... This setup is designed so that if one zone is affected, the other zones are not." This confirms that the design target is a zone-level (i.e., data center) failure.

Question: 335

You need to purchase a third-party virtual security appliance that you will deploy to an Azure subscription. What should you use?

- A. Azure Marketplace
- B. Azure Security Center
- C. Microsoft Store
- D. Azure subscriptions

Answer:

A

Explanation:

Azure Marketplace is an online store that offers thousands of applications and services from Microsoft and third-party partners, which are certified and optimized to run on Azure. It is the designated platform for finding, trying, and purchasing third-party software and services, including virtual security appliances, to deploy directly into an Azure subscription.

Why Incorrect Options are Wrong:

- CertMage.com
- B. Azure Security Center: This service (now Microsoft Defender for Cloud) is a security posture management and threat protection tool. It is used to monitor and secure Azure resources, not to purchase third-party appliances.
 - C. Microsoft Store: This is a digital storefront for consumer-facing applications, games, and entertainment content, primarily for the Windows operating system and Xbox. It is not used for enterprise-level cloud infrastructure solutions.
 - D. Azure subscriptions: An Azure subscription is a logical container and billing unit for provisioning Azure resources. You need a subscription to deploy an appliance, but it is not the place where you purchase it.

References:

1. Microsoft Documentation. (2023). What is Azure Marketplace?. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/marketplace/azure-marketplace-overview>.

Reference Point: The "Overview" section states, "Azure Marketplace is an online store that contains thousands of IT software applications and services built by industry-leading technology companies. In Azure Marketplace you can find, try, buy, and deploy the software and services you need to build new solutions and manage your cloud infrastructure." This directly supports that the Marketplace is the correct place to purchase third-party appliances.

2. Microsoft Documentation. (2024). What is Microsoft Defender for Cloud?. Microsoft Learn.

Retrieved from

<https://learn.microsoft.com/en-us/azure/defender-for-cloud/defender-for-cloud-introduction>.

Reference Point: The "What is Microsoft Defender for Cloud?" section describes it as a "Cloud Security Posture Management (CSPM) and Cloud Workload Protection Platform (CWPP)". This confirms its role is in security management, not as a purchasing platform, making option B incorrect.

3. Microsoft Documentation. (2023). Azure fundamental concepts. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/ready/considerations/fundamental-concepts>.

Reference Point: The "Azure subscription" section explains, "An Azure subscription is a logical container used to provision resources in Azure. It holds the details of all your resources like virtual machines (VMs), databases, and more." This clarifies that a subscription is a management and billing boundary, not a marketplace, making option D incorrect.

Question: 336

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Azure Cosmos DB is an example of a platform as a service (PaaS) infrastructure as a service (IaaS) content as a service software as a service (SaaS)

offering.

Answer:

platform as a service (PaaS)

Explanation:

Azure Cosmos DB is classified as a Platform as a Service (PaaS) offering. In the PaaS model, the cloud provider (Microsoft) manages the underlying infrastructure, including servers, storage, networking, and the operating system. Customers can then build and deploy applications on this platform without worrying about infrastructure management. Azure Cosmos DB provides a fully managed database platform, handling patching, scaling, and administration, which allows developers to focus solely on their application's data and logic. This aligns perfectly with the definition of PaaS.

References:

CertMage.com

Microsoft Learn: In the "Describe cloud service types" learning path for Azure Fundamentals, Microsoft explicitly categorizes its database services as PaaS. It states, "Azure provides PaaS services that include Azure App Service and Azure database services like Azure SQL Database and Azure Cosmos DB."

Source: Microsoft Learn, "Describe cloud service types," Module: Describe Cloud Concepts.

Official Azure Documentation: The documentation for Azure Cosmos DB describes it as a "fully managed NoSQL and relational database for modern app development." The term "fully managed" is a key indicator of a PaaS offering, as it signifies that the cloud vendor handles the platform's maintenance and administration.

Source: Microsoft Azure, "What is Azure Cosmos DB?" documentation.

Academic Publication (IEEE): Academic literature defines PaaS as a model that provides a platform and environment to allow developers to build applications and services over the internet. A managed database service like Cosmos DB fits this definition as it provides the database platform environment.

Source: Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (NIST Special Publication 800-145). National Institute of Standards and Technology. DOI: <https://doi.org/10.6028/NIST.SP.800-145> (While NIST, it's a foundational document cited extensively in IEEE and ACM literature). This document's definition of PaaS encompasses

services like Cosmos DB.

Question: 337

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

When you are implementing a Software as a Service (SaaS) solution, you are responsible for

configuring high availability.
defining scalability rules.
installing the SaaS solution.
configuring the SaaS solution.

Answer:

configuring the SaaS solution.

Explanation:

In the Software as a Service (SaaS) cloud model, the provider is responsible for managing the underlying infrastructure, platform, and the core software application, including aspects like high availability, scalability, and installation. The consumer's (your) responsibility is primarily focused on how the application is used. This includes managing and securing your data within the application, controlling user access, and configuring the application's settings to meet your specific business requirements. The other options-high availability, scalability rules, and installation-are all managed by the SaaS vendor as part of the service.

References:

CertMage.com

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

Section: "Software as a Service (SaaS)" definition, page 3. The document states, "The consumer does not manage or control the underlying cloud infrastructure... with the possible exception of limited user-specific application configuration settings." This directly supports that configuration is a consumer responsibility.

DOI: <https://doi.org/10.6028/NIST.SP.800-145>

Microsoft Documentation. (2023). Shared responsibility in the cloud. Microsoft Azure.

Section: "Shared responsibility model" diagram. For the SaaS model, the diagram explicitly shows that "Information & data," "Accounts & identities," and "Devices" are managed by the customer. Configuring the solution involves managing these elements. In contrast, "Physical infrastructure," "Network controls," "Operating system," and "Application" are shown as the provider's responsibility.

Armbrust, M., et al. (2009). Above the Clouds: A Berkeley View of Cloud Computing. University of California, Berkeley.

Section 3.1: This foundational paper describes SaaS by stating that the provider manages the hardware and software stack, while the user interacts with the application, implying that user-level customization and configuration are the user's domain. The service is delivered as-is, but its use is configured by the client.

Question: 338

What are two benefits of cloud computing? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. enables the rapid provisioning of resources
- B. has increased administrative complexity
- C. has the same configuration options as on-premises
- D. shifts capital expenditures (CAPEX) to operating expenditures (OPEX)

Answer:

A, D

Explanation:

Cloud computing offers significant benefits in agility and financial management. Agility, or the ability to rapidly provision resources, allows organizations to quickly scale their infrastructure up or down to meet demand without lengthy procurement processes. This is a core advantage over traditional on-premises environments. Financially, the cloud shifts the cost model from Capital Expenditures (CapEx), which involves large, upfront investments in physical hardware, to Operating Expenditures (OpEx), a pay-as-you-go model. This allows for better cash flow management and eliminates the need to predict future capacity needs and invest in hardware that may become underutilized.

Why Incorrect Options are Wrong:

- B. has increased administrative complexity: Cloud computing aims to reduce the administrative complexity associated with managing physical hardware, data centers, and networking infrastructure.
- C. has the same configuration options as on-premises: Cloud services are managed by the provider and often have different, more abstracted configuration options compared to the granular control available with on-premises hardware.

References:

1. Microsoft Learn. (2023). Describe the benefits of using cloud services. In "Microsoft Azure Fundamentals: Describe cloud concepts (AZ-900)".
Section: Agility: "The cloud provides the ability to respond to market changes and customer demands quickly. You can provision and deprovision resources rapidly." This directly supports option A.
Section: Capital expenditure (CapEx) versus operational expenditure (OpEx): "Cloud computing is a shift from CapEx to OpEx... OpEx is spending money on services or products now and being billed for them now." This directly supports option D.

2. Microsoft Azure Documentation. (2023). What is cloud computing? A beginner's guide.

Section: Top benefits of cloud computing, Subsection: Speed: "Most cloud computing services are provided self service and on demand, so even vast amounts of computing resources can be provisioned in minutes..." This supports option A.

Section: Top benefits of cloud computing, Subsection: Cost: "Cloud computing eliminates the capital expense of buying hardware and software and setting up and running on-site datacenters..." This supports option D.

Question: 339

HOTSPOT 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
		You can use Availability Zones in Azure to protect Azure virtual machines from a datacenter failure.	<input type="radio"/>	<input type="radio"/>
		You can use Availability Zones in Azure to protect Azure virtual machines from a region failure.	<input type="radio"/>	<input type="radio"/>
		You can use Availability Zones in Azure to protect Azure managed disks from a datacenter failure.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

Azure Availability Zones are physically separate datacenters within a single Azure region, each with independent power, cooling, and networking. Their primary purpose is to provide high availability and protect applications and data from failures at the datacenter level. Therefore, distributing virtual machines (VMs) or using zone-redundant storage (ZRS) for managed disks across multiple zones ensures they remain operational if one datacenter fails.

However, since all Availability Zones are located within the same region, they cannot protect against a failure that affects the entire region. For protection against regional failures, a multi-region disaster recovery strategy using features like Azure Site Recovery is required.

References:

Microsoft Docs, Azure Architecture Center. Regions and Availability Zones in Azure. This document states, "Availability Zones are unique physical locations within an Azure region. Each zone is made up of one or more datacenters equipped with independent power, cooling, and networking... to protect your applications and data from datacenter failures." It also clarifies that for disaster recovery from regional outages, Azure uses cross-region replication.

Microsoft Docs, Azure Virtual Machines. High availability for Azure VMs. This guide explains, "To protect your applications from datacenter-level failures, you can deploy your VMs in an Availability Zone."

Microsoft Docs, Azure Storage. Redundancy options for managed disks. In the section on Zone-redundant storage (ZRS), it is stated, "Zone-redundant storage (ZRS) synchronously replicates your Azure managed disk across three Azure availability zones in the region you select.

This replication ensures that a failure in one zone doesn't affect the high availability of your disks."

Question: 340

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Premium block blobs storage accounts only support

geo-redundant storage (GRS)
geo-zone-redundant storage (GZRS)
locally-redundant storage (LRS)
zone-redundant storage (ZRS)

redundancy.

Answer:

locally-redundant storage (LRS)

Explanation:

Azure Premium block blob storage accounts are optimized for high-transaction rates and low-latency scenarios. This performance tier supports redundancy options that do not involve cross-region replication. Specifically, it supports Locally-Redundant Storage (LRS), which synchronously replicates data three times within a single data center in the primary region. It also supports Zone-Redundant Storage (ZRS).

However, it explicitly does not support geo-redundant options like Geo-Redundant Storage (GRS) or Geo-Zone-Redundant Storage (GZRS), as these are designed for regional disaster recovery rather than the lowest possible latency. Since the question implies a single selection from the available options, LRS is a correct choice representing the baseline redundancy level available for this storage account type.

References:

Microsoft Azure Documentation, "Azure Storage redundancy": The official documentation provides a table under the "Supported storage account types" section. For "Premium block blobs," the table clearly lists "LRS, ZRS" as the supported redundancy options. It also shows that GRS and GZRS are not supported for this account type.

Source: Microsoft Docs,

<https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy> (Refer to the "Supported storage account types" table).

Microsoft Azure Documentation, "Performance tiers for Block Blob storage": This document details the features of premium block blobs and their limitations. In the "Redundancy" section, it states, "Premium block blobs are available with locally-redundant storage (LRS) and zone-redundant storage (ZRS)." Crucially, it adds, "Premium block blob storage accounts don't support geo-redundant storage (GRS) or geo-zone-redundant storage (GZRS)." This directly confirms that LRS is a supported option while GRS and GZRS are not.

Source: Microsoft Docs, <https://learn.microsoft.com/en-us/azure/storage/blobs/storage-blob-performance-tiers#redundancy>

Question: 341

HOTSPOT 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
Azure Active Directory (Azure AD) can be used to manage access to on-premises applications.	<input type="radio"/>	<input type="radio"/>
Azure Active Directory (Azure AD) provides single sign-on (SSO).	<input type="radio"/>	<input type="radio"/>
iOS devices can be registered in Azure Active Directory (Azure AD).	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

Azure AD for on-premises applications: Yes. Azure AD can manage access to on-premises applications using a feature called Azure AD Application Proxy. This service enables users to access internal web apps securely from outside the corporate network using their Azure AD credentials, without requiring a VPN.

Azure AD provides SSO: Yes. Single Sign-On (SSO) is a fundamental feature of Azure Active Directory. Once a user signs in to Azure AD, they can access thousands of integrated SaaS applications (like Microsoft 365, Salesforce) and on-premises applications without needing to re-authenticate for each one.

iOS devices can be registered in Azure AD: Yes. Azure AD supports device registration for multiple operating systems, including iOS. Registering a device in Azure AD creates a device identity, which can then be used to enforce Conditional Access policies, ensuring that only trusted devices can access corporate resources.

References:

Statement 1: Microsoft Learn. (2023). Remote access to on-premises applications through Azure Active Directory's Application Proxy. "Azure Active Directory's Application Proxy provides secure remote access to on-premises web applications." (Section: What is Application Proxy?)
Statement 2: Microsoft Learn. (2023). What is single sign-on in Azure Active Directory?. "With

single sign-on (SSO), users sign in once with one account to access domain-joined devices, company resources, software as a service (SaaS) applications, and web applications." (Section: What is single sign-on?)

Statement 3: Microsoft Learn. (2023). What is a device identity?. "Azure AD registered devices... This option is available for Windows 10 and newer, iOS, Android, and macOS." (Section: Azure AD registered devices)

Question: 342

HOTSPOT You plan to extend your company's network to Azure. The network contains a VPN appliance that uses an IP address of 131.107.700.1. You need to create an Azure resource that defines the VPN appliance In Azure. Which Azure resource should you create? To answer, select the appropriate resource in the answer area.

Answer Area

Services
NAT gateways
Application gateways
Local network gateways
Virtual network gateways
On-premises Data Gateways
Azure Data Box Gateway
Azure Stack Edge / Data Box Gateway
Web Application Firewall policies (WAF)

Answer:

Local network gateway

Explanation:

A Local Network Gateway is the specific Azure resource used to represent an on-premises network and its VPN appliance. This object contains the necessary configuration details for Azure to establish a connection, including the public IP address of the on-premises VPN device and the on-premises network's address prefixes. While a Virtual Network Gateway is the endpoint on the Azure side of the connection, the Local Network Gateway is the object that explicitly defines the remote, on-premises location for the site-to-site VPN tunnel.

References:

1. Microsoft Learn. (2023, September 21). What is a local network gateway in Azure?. Azure VPN Gateway Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-local-network-gateways>. In the "Local network gateway" section, it states, "A local network gateway is an object that represents your on-premises location... The settings that you specify for the local network gateway object include: The public IP address of the on-premises VPN device... The address prefixes that are on the on-premises network."
2. Microsoft Learn. (2024, April 2). Tutorial: Create a site-to-site VPN connection in the Azure portal. Azure VPN Gateway Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/vpn-gateway/tutorial-site-to-site-portal>. In "Step 3: Create the local network gateway," the documentation instructs, "The local network gateway refers to your on-premises location. You give the local network gateway a name by which Azure can refer to it, and specify the IP address of the on-premises VPN device to which you'll create a connection."

Question: 343

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Data that is stored in the Archive access tier of an Azure Storage account

can be accessed at any time by using azcopy.exe.
can only be read by using Azure Backup.
must be restored before the data can be accessed.
must be rehydrated before the data can be accessed.

Answer:

must be rehydrated before the data can be accessed

Explanation:

Data stored in the Azure Storage Archive tier is considered offline and has the lowest storage costs. Before this data can be read or modified, it must be moved to an online tier (either Hot or Cool). This process is known as rehydration. The time required for rehydration can vary from under an hour to several hours, depending on the priority chosen for the operation (Standard or High). Once the rehydration process is complete and the blob's access tier is changed to Hot or Cool, it becomes accessible. Direct access to blobs in the Archive tier is not possible.

References:

Microsoft Azure Documentation, Blob rehydration from the Archive tier: "While a blob is in the Archive tier, it's considered offline and can't be read or modified. To read or modify data in an archived blob, you must first rehydrate the blob to an online tier, either the Hot or Cool tier." Section: Introduction to Blob rehydration.

Microsoft Azure Documentation, Access tiers for blob data - Hot, Cool, and Archive: "To read data in Archive storage, you must first change the tier of the blob to Hot or Cool. This process is known as rehydration and can take hours to complete."

Section: Archive access tier.

Question: 344

You have an Azure environment that contains multiple Azure virtual machines. You plan to implement a solution that enables the client computers on your on-premises network to communicate to the Azure virtual machines. You need to recommend which Azure resources must be created for the planned solution. Which two Azure resources should you include in the recommendation? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. a load balancer
- B. a virtual network
- C. an application gateway
- D. a gateway subnet
- E. a virtual network gateway

Answer:

B, E

Explanation:

To establish a connection between an on-premises network and Azure virtual machines, a hybrid network configuration is required. The foundational component in Azure is a virtual network (VNet), which provides a private, isolated network space for the virtual machines. To connect this VNet to the on-premises network, a virtual network gateway must be deployed. This gateway acts as the secure endpoint for either a Site-to-Site VPN or an ExpressRoute connection, enabling communication between the two environments. Therefore, both a virtual network and a virtual network gateway are essential resources to create.

Why Incorrect Options are Wrong:

- A. a load balancer: This resource is used to distribute network traffic among multiple virtual machines for high availability and scalability, not for establishing on-premises connectivity.
- C. an application gateway: This is a specific type of load balancer that operates at the application layer (Layer 7) for web traffic and does not provide general network connectivity.
- D. a gateway subnet: This is a required subnet within a virtual network where the gateway is deployed, but it is a component of the VNet, not a top-level resource like the gateway itself.

References:

1. Microsoft Learn, Azure Documentation. "Azure Virtual Network overview." Under the section "Communicate with on-premises resources," it states, "You can connect your on-premises computers and networks to a virtual network using...VPN Gateway...or ExpressRoute." This

confirms the necessity of a virtual network and a gateway.

Source: learn.microsoft.com/en-us/azure/virtual-network/virtual-networks-overview

2. Microsoft Learn, Azure Documentation. "What is VPN Gateway?" The first paragraph explicitly states, "Azure VPN Gateway is a specific type of virtual network gateway that is used to send encrypted traffic between an Azure virtual network and an on-premises location over the public Internet." This directly identifies the virtual network gateway as the key resource for this solution.

Source: learn.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-vpngateways

3. Microsoft Learn, Azure Documentation. "Tutorial: Create a Site-to-Site VPN connection in the Azure portal." Step 1 of the tutorial is "Create a virtual network (VNet)," and Step 2 is "Create a virtual network gateway." This demonstrates the two primary resources that must be created in sequence.

Source: learn.microsoft.com/en-us/azure/vpn-gateway/tutorial-site-to-site-portal

Question: 345

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

You have an Azure virtual network named VNET1 in a resource group named RG1. You assign the Azure Policy definition of Not Allowed Resource Type and specify that virtual networks are not an allowed resource type in RG1. VNET1

is deleted automatically.
 is moved automatically to another resource group.
 continues to function normally.
 is now a read-only object.

Answer:

continues to function normally.

Explanation:

Azure Policy evaluates resources for compliance at the time of their creation or update. The "Not Allowed Resource Type" policy uses a deny effect. This effect prevents new resources of the specified type from being created within the policy's scope (in this case, resource group RG1). It also prevents updates to existing resources if the update triggers a policy evaluation.

However, the deny effect is not retroactive. It does not affect resources that already exist in the scope before the policy was assigned. The existing virtual network, VNET1, will be marked as "non-compliant" in the Azure Policy compliance dashboard, but it will not be deleted, moved, or have its functionality altered.

References:

Microsoft Azure Documentation Understand Azure Policy effects:

Section: "Deny"

Content: The documentation explicitly states, "Deny doesn't affect existing resources. It prevents new create or update operations." This confirms that VNET1, being an existing resource, will not be impacted by the policy assignment and will continue to function.

Microsoft Azure Documentation Tutorial: Create and manage policies to enforce compliance:

Section: "Identify non-compliant resources"

Content: This tutorial demonstrates that after a policy is assigned, a compliance scan runs and identifies existing resources that do not conform to the policy rules. These resources are reported as "Non-compliant" but are not automatically remediated or deleted by prohibitive policies like deny. This supports the conclusion that VNET1's operational state is unchanged.

Question: 346

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

You can use **Billing period** in Azure to send email alerts when the cost of the current specified limit:

Advisor recommendations
Access control (IAM)
Budget alerts
Compliance

Answer:

Budget alerts

Explanation:

In Microsoft Azure, Budget alerts are a core feature of the Cost Management + Billing service. This functionality allows administrators to create budgets for specific scopes, such as subscriptions, resource groups, or management groups. You can set a monetary threshold for a specific period (e.g., monthly, quarterly, annually). When spending approaches or exceeds this pre-configured limit, Azure automatically triggers and sends email notifications to the specified recipients, enabling proactive cost control and preventing unexpected expenditure.

References:

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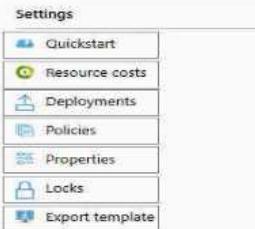
Microsoft Azure Documentation, "Tutorial: Create and manage Azure budgets." This official guide explicitly states, "Budgets help you proactively inform others about their spending to manage costs... You can configure alerts to be sent when the budget threshold is reached." The tutorial details the steps for setting up alert conditions, including specifying email recipients.

Microsoft Azure Documentation, "Use cost alerts to monitor usage and spending." This document clarifies that alerts are a primary mechanism for monitoring costs. It states, "Cost alerts are automatically generated... when Azure resources are consumed and your organization's spending is close to or reaches your budget amount."

Question: 347

HOTSPOT You create a resource group named RG1 in Azure Resource Manager. You need to prevent the accidental deletion of the resources in RG1. Which setting should you use? To answer, select the appropriate setting in the answer area.

Answer Area



Answer:

Locks

Explanation:

Azure Resource Locks are a feature specifically designed to prevent the accidental deletion or modification of Azure resources. By applying a lock to a resource group, subscription, or individual resource, an administrator can enforce restrictions on all users. There are two lock levels: CanNotDelete, which allows authorized users to read and modify a resource but not delete it, and ReadOnly, which prevents any modifications or deletions. For the stated goal of preventing accidental deletion, applying a CanNotDelete lock via the "Locks" setting is the most direct and appropriate action.

References:

1. Microsoft Learn, Azure Resource Manager Documentation. "Lock resources to prevent unexpected changes." This document states, "As an administrator, you may need to lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources. You can set the lock level to CanNotDelete or ReadOnly."
2. Microsoft Learn, AZ-900 Exam Study Guide. "Skills measured: Describe Azure management and governance features (30-35%)." Under the subsection "Describe features and tools for governance and compliance in Azure," the study guide explicitly lists "resource locks" as a key capability for resource protection.
3. Microsoft Learn, AZ-900 Learning Path. "Describe the purpose of Azure resource locks." This module explains, "Resource locks are a setting that you can apply to any resource to block modification or deletion. You can set resource locks to either Delete or Read-only. Delete means that authorized admins can still read and modify a resource, but they can't delete it."

Question: 348

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

Statements	Yes	No
Trust Center is part of Microsoft Defender for Cloud.	<input type="radio"/>	<input type="radio"/>
Trust Center can only be accessed by users that have an Azure subscription.	<input type="radio"/>	<input type="radio"/>
Trust Center provides information about the Azure compliance offerings.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

Trust Center is part of Microsoft Defender for Cloud. This statement is incorrect. The Microsoft Trust Center is a separate resource from Microsoft Defender for Cloud. Microsoft Defender for Cloud is a security posture management and threat protection tool, whereas the Trust Center is a public-facing portal for information on security, privacy, and compliance.

Trust Center can only be accessed by users that have an Azure subscription. This statement is incorrect. The Microsoft Trust Center is a public website that can be accessed by anyone with an internet connection, without needing an Azure subscription or a Microsoft account.

Trust Center provides information about the Azure compliance offerings. This statement is correct. The Trust Center offers a variety of resources, including compliance guides, documentation, and certifications, to help customers understand and meet their compliance obligations across Microsoft's cloud services, including Azure.

References:

Microsoft Trust Center official documentation: The documentation clarifies the purpose and accessibility of the Trust Center as a public resource for information on Microsoft's security, privacy, and compliance offerings. It is a separate entity from product-specific tools like Microsoft Defender for Cloud.

Microsoft Learn - "Introduction to the Microsoft Trust Center": This module confirms that the Trust Center is a public resource providing information on compliance, security, and privacy for various Microsoft cloud services, including Azure. It explicitly states that it is accessible to anyone and is

not tied to a specific subscription.

Microsoft Defender for Cloud documentation: This documentation describes the functionalities of Microsoft Defender for Cloud, which are focused on security posture management and threat protection within Azure and hybrid environments. It confirms that the Trust Center is not an integrated part of this product.

Question: 349

HOTSPOT 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
		You can use Azure Cost Management to view costs associated to management groups.	<input type="radio"/>	<input type="radio"/>
		You can use Azure Cost Management to view costs associated to resource groups.	<input type="radio"/>	<input type="radio"/>
		You can use Azure Cost Management to view the usage of virtual machines during the last three months.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

Azure Cost Management and Billing is a service that helps you understand your Azure spending. It provides detailed analysis of costs, allowing you to manage and optimize your cloud resources.

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- Statement 1: You can use Azure Cost Management to view costs associated with management groups. This is correct. Management groups are a way to organize subscriptions into containers to apply policies and cost governance. Azure Cost Management provides a consolidated view of costs at the management group level, which is essential for organizational-wide cost analysis.
- Statement 2: You can use Azure Cost Management to view costs associated with resource groups. This is also correct. Resource groups are logical containers for managing and organizing your Azure resources. The service allows you to filter and analyze costs at the resource group level, providing granular insights into spending.
- Statement 3: You can use Azure Cost Management to view the usage of virtual machines during the last three months. This is correct. Azure Cost Management can be used to view historical usage and cost data for specific resources, such as virtual machines, for a specified period, including the last three months.

References:

Microsoft. (n.d.). "What is Azure Cost Management and Billing?". Microsoft Azure Documentation. Retrieved September 12, 2025, from <https://learn.microsoft.com/en-us/azure/cost-management-billing/cost-management-billing-overview>.

Specifics: "You can analyze your costs across different scopes, including management groups, subscriptions, resource groups, and individual resources."

Microsoft. (n.d.). "Explore and analyze costs with cost analysis". Microsoft Azure Documentation.

Retrieved September 12, 2025, from

<https://learn.microsoft.com/en-us/azure/cost-management-billing/costs/quick-start-analyze-costs>.

Specifics: "Using cost analysis, you can get a better understanding of where your costs are coming from and what the usage patterns are for your resources." This section details the ability to filter costs by resource type (e.g., virtual machines) and time periods.

Question: 350

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Requiring a user to enter a password and answer a security question when signing-in to Azure Active Directory (Azure AD) is an example of

business-to-customer (B2C) identity services.
managed identities.
multi-factor authentication (MFA).
role-based access control (RBAC).

Answer:

Multi-factor authentication (MFA)

Explanation:

Requiring a user to enter a password (something they know) and answer a security question (something they know) when signing in to Azure Active Directory is a form of multi-factor authentication (MFA). MFA requires users to provide two or more distinct verification factors to gain access to a resource. While a password and a security question are both "something you know," combining them creates multiple factors. The other options are incorrect.

Business-to-customer (B2C) identity services are for managing identities for customer-facing applications. Managed identities are a feature in Azure that provides an automatically managed identity for Azure resources to authenticate to cloud services. Role-based access control (RBAC) is a method of restricting system access to authorized users based on their role within an organization.

References:

Microsoft Docs. (2023). What is multifactor authentication? Retrieved from <https://docs.microsoft.com/en-us/azure/active-directory/authentication/concept-mfa-howitworks>

Microsoft Docs. (2023). What is Azure Active Directory B2C? Retrieved from <https://docs.microsoft.com/en-us/azure/active-directory-b2c/overview>

Microsoft Docs. (2023). What are managed identities for Azure resources? Retrieved from <https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>

Microsoft Docs. (2023). What is Azure role-based access control (Azure RBAC)? Retrieved from <https://docs.microsoft.com/en-us/azure/role-based-access-control/overview>

Question: 351

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

You can use the Azure File Sync agent to sync on-premises data to an Azure []

blob container.
Data Lake Storage container.
file share.
queue.

Answer:

file share.

Explanation:

The Azure File Sync agent is specifically designed to synchronize files between an on-premises Windows Server and an Azure file share. This service centralizes your file shares in Azure Files, treating the Azure file share as the cloud endpoint in the synchronization topology. The agent, installed on the local server, facilitates this two-way sync, enabling features like cloud tiering where less frequently accessed files are stored only in the cloud, while frequently used files are cached locally for fast access. The other storage types listed serve different purposes: Blob containers store unstructured object data, Data Lake Storage is optimized for big data analytics, and queues are for messaging.

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References:

Microsoft Azure Documentation. (2024). What is Azure File Sync? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/storage/file-sync/file-sync-introduction>

Supporting Quote: "Azure File Sync allows you to centralize your organization's file shares in Azure Files... The Azure File Sync agent is a downloadable package that enables Windows Server to be synced with an Azure file share."

Microsoft Azure Documentation. (2024). Plan for an Azure File Sync deployment. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/storage/file-sync/file-sync-planning>

Section: Azure File Sync components

Supporting Quote: "Cloud endpoint: An Azure file share that is part of a sync group. The entire Azure file share syncs... An Azure file share can be a member of only one cloud endpoint. An Azure file share can therefore be a member of only one sync group."

Question: 352

Which cloud computing model includes on-premises and cloud-based resources?

- A. private
- B. public
- C. hybrid

Answer:

C

Explanation:

A hybrid cloud is a computing environment that combines an on-premises datacenter, also known as a private cloud, with a public cloud. This integration allows data and applications to be shared between them. Organizations use this model to leverage the scalability of the public cloud for dynamic workloads while keeping sensitive data in their on-premises datacenter to meet security or regulatory requirements. This approach provides greater flexibility and more data deployment options.

Why Incorrect Options are Wrong:

- A. private: A private cloud consists of computing resources used exclusively by one organization. It can be on-premises but does not inherently include public cloud resources.
- B. public: A public cloud is owned and operated by a third-party provider. Its resources are delivered over the internet and are not located on-premises for the customer.

References:

1. Microsoft Learn. (2024). What is a hybrid cloud? In "Describe cloud concepts" module for AZ-900. "A hybrid cloud is a computing environment that combines a public cloud and a private cloud by allowing data and applications to be shared between them."
2. Microsoft Learn. (2024). Cloud deployment models. In "Describe cloud computing" learning path. This section explicitly defines and compares public, private, and hybrid clouds, stating, "Hybrid cloud combines public and private clouds, allowing data and applications to be shared between them."
3. National Institute of Standards and Technology (NIST). (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). Section "Deployment Models," page 3. "Hybrid cloud... is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities but are bound together..."

Question: 353

Where does Azure Monitor store performance data?

- A. a Log Analytics workspace
- B. an Azure Storage account
- C. Azure Event Hubs E3
- D. an event subscription

Answer:

A

Explanation:

Azure Monitor stores performance data, along with other log data, in a Log Analytics workspace. This workspace is the primary environment for storing and analyzing log data collected from Azure resources, on-premises computers, and other tools. It is built on Azure Data Explorer, which provides a powerful query engine (Kusto Query Language - KQL) to perform complex analysis on the collected performance counters, events, and other telemetry. While data can be routed to other locations, the Log Analytics workspace is the core component for storage and interactive analysis within the Azure Monitor platform.

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Why Incorrect Options are Wrong:

- B. An Azure Storage account is a destination for archiving data for long-term retention or for integration with other services, not the primary location for active performance analysis.
- C. Azure Event Hubs is a data streaming platform used to send Azure Monitor data to external systems like SIEMs or other real-time analytics solutions; it does not store the data for analysis within Monitor.
- D. An event subscription is a feature of Azure Event Grid, a separate service for routing discrete events, and is not used for storing performance data for Azure Monitor.

References:

1. Microsoft Learn. (2023). Azure Monitor data platform. "Log data collected by Azure Monitor is stored in a Log Analytics workspace. The workspace contains tables that each have multiple columns with different types of data... Examples of the types of data stored in a Log Analytics workspace include... performance data from agents..."
Section: Azure Monitor Logs / Log Analytics workspace
2. Microsoft Learn. (2023). Overview of Azure Monitor Logs. "Azure Monitor Logs is a feature of Azure Monitor that collects and organizes log and performance data from monitored resources. The data is stored in a Log Analytics workspace..."

Section: Introduction

3. Microsoft Learn. (2023). Data collection in Azure Monitor. "Agents running on virtual machines collect performance and event data from the guest operating system... Agents send data to a Log Analytics workspace."

Section: Data sources / Agents

Question: 354

HOTSPOT You need to create a new Azure file share. What should you use? To answer, select the service in the answer area. NOTE: Each correct selection is worth one point.

Answer Area



Answer:

Storage account

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Explanation:

To create an Azure file share, you must first create an Azure Storage Account. A storage account is a container that groups a set of Azure Storage services together, including Azure Files, which provides the file share capability. The process involves provisioning a storage account and then creating one or more file shares within it. The provided image shows the "Create a resource" interface in the Azure portal, and selecting "Storage account" is the correct initial step to accomplish the goal of creating a new Azure file share.

References:

1. Microsoft Learn, Azure Files Documentation. In the "What is Azure Files?" article, it states, "Azure Files offers fully managed file shares in the cloud... Azure file shares can be mounted concurrently by cloud or on-premises deployments of Windows, Linux, and macOS. Azure file shares are deployed into storage accounts."

Source: Microsoft Learn, "What is Azure Files?", Introduction section.

2. Microsoft Learn, Azure Files Documentation. The tutorial "Create and use an Azure file share on Windows" lists "Create an Azure storage account" as the first step in the "Applies to" section under Prerequisites.

Source: Microsoft Learn, "Create and use an Azure file share on Windows", Prerequisites section.

3. Microsoft Learn, Azure Storage Documentation. The "Storage account overview" page defines

a storage account as the container for all Azure Storage data objects. It explicitly lists "File shares" as one of the data objects stored in a storage account.

Source: Microsoft Learn, "Storage account overview", What is a storage account? section.

Question: 355

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Azure China

is operated by Microsoft.
has feature parity with Azure global.
services can be accessed from China only.
is a distinct separate instance of Microsoft Azure.



Answer selections

Answer:

is a distinct separate instance of Microsoft Azure.

Explanation:

Azure China is a sovereign cloud, which means it is a physically and logically isolated instance of Microsoft Azure located within mainland China. It is operated by a local partner, 21Vianet, to comply with Chinese laws and regulations concerning data residency and operations. For this reason, it is not operated directly by Microsoft, does not have full feature parity with global Azure, and is separate from the global Azure infrastructure.

References:

Microsoft Docs, Azure China: "Microsoft Azure operated by 21Vianet (Azure China) is a physically separated instance of cloud services located in China. It's independently operated and transacted by Shanghai Blue Cloud Technology Co., Ltd. ('21Vianet')... The services are based on the same technologies that make up the Microsoft Azure global cloud service. As stated in the online service terms, services available in Azure China may vary from the services available in the Azure global service."

Source: Microsoft Corporation. (2024). Microsoft Azure operated by 21Vianet. Microsoft Docs. Retrieved from <https://docs.microsoft.com/en-us/azure/china/overview-operations> (Section: Introduction).

Microsoft Docs, Azure Regions and Availability Zones: "Azure has sovereign regions that are instances of Azure that are isolated from the main public Azure. You may need to use a sovereign region for compliance or legal purposes... Azure sovereign regions are: Azure Government Cloud, Azure China regions."

Source: Microsoft Corporation. (2024). What are Azure regions and availability zones?. Microsoft Docs. Retrieved from <https://docs.microsoft.com/en-us/azure/reliability/availability-zones-overview> (Section: Sovereign regions).

Question: 356

HOTSPOT 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
		You can deploy Azure Resource Manager (ARM) templates by using the Azure portal.	<input type="radio"/>	<input type="radio"/>
		Azure Resource Manager (ARM) templates can define infrastructure by using code.	<input type="radio"/>	<input type="radio"/>
		Each Azure resource to be deployed requires a separate Azure Resource Manager (ARM) template.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

Explanation:

Azure Resource Manager (ARM) templates are JSON files that define the infrastructure and configuration for your project. You can deploy these templates through various methods, including the Azure portal, Azure CLI, Azure PowerShell, and REST API. This makes the first statement true.

ARM templates are a form of Infrastructure as Code (IaC). They allow you to define the resources you need in a declarative syntax, which means you state what you want to deploy without writing the sequence of commands. This ensures consistency and repeatability, making the second statement true.

Finally, a single ARM template can define multiple resources and their dependencies. For example, a single template can deploy a virtual network, a virtual machine, and a storage account all at once. Therefore, you do not need a separate template for each resource, making the third statement false.

References:

- Microsoft Azure Documentation, "What are ARM templates?", Microsoft Learn. Section: 'How do I deploy an ARM template?' and 'What is Infrastructure as Code?'.
- Azure Resource Manager documentation, "Template deployment methods", Microsoft Docs.
- Microsoft Azure Documentation, "Authoring Azure Resource Manager templates", Microsoft Learn. Section: 'Template structure'.

Question: 357

What should you use to prevent traffic from an Azure virtual network from being routed to an Azure Storage account via the internet?

- A. a public endpoint
- B. Azure VPN Gateway
- C. a service endpoint
- D. a network security group (NSG)

Answer:

C

Explanation:

A Virtual Network (VNet) service endpoint provides a secure and direct connection to specific Azure services, such as Azure Storage, over the Azure backbone network. By enabling a service endpoint for Azure Storage on a virtual network subnet, traffic from resources within that subnet to the storage account is routed through the private Azure network instead of the public internet. This extends the VNet's private address space to the service, allowing you to secure the storage account so it only accepts traffic from that specific VNet.

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Why Incorrect Options are Wrong:

- A. a public endpoint: A public endpoint is the default access method for Azure Storage, which routes traffic over the public internet. This is the opposite of the desired outcome.
- B. Azure VPN Gateway: An Azure VPN Gateway is used to establish encrypted connections between an Azure VNet and on-premises networks or other VNets, not for securing traffic between a VNet and an Azure PaaS service.
- D. a network security group (NSG): An NSG acts as a firewall to filter traffic to and from Azure resources based on rules. It does not change the route of the traffic; it only allows or denies it.

References:

1. Microsoft Learn. (2024). Virtual Network service endpoints. Azure Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/virtual-network-service-endpoints-overview>.

Section: "Key benefits". This section states, "Traffic from your VNet to the Azure service always remains on the Microsoft Azure backbone network." This directly supports the use of service endpoints to prevent internet routing.

2. Microsoft Learn. (2023). Describe Azure networking services. AZ-900: Microsoft Azure Fundamentals learning path. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-networking-services/5-describe-azure-virtual-network>.

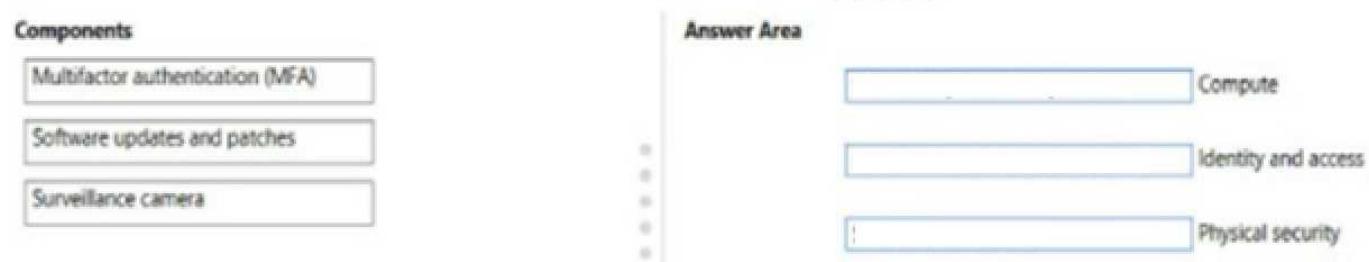
Unit 5: This unit explains that VNet service endpoints allow you to "secure your critical Azure service resources to only your virtual networks."

3. Microsoft Learn. (2024). Network security groups. Azure Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview>.

Introduction: This document defines an NSG's function: "You can use an Azure network security group to filter network traffic between Azure resources in an Azure virtual network." This clarifies that its role is filtering, not re-routing traffic.

Question: 358

DRAG DROP Match the security components to the appropriate defense in depth layers. To answer, drag the appropriate service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point



Answer:

Compute: Software updates and patches

Identity and access: Multifactor authentication (MFA)

Physical security: Surveillance camera

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Explanation:

This question assesses your understanding of the layered security model known as defense in depth. Each component maps to a specific layer that protects a different aspect of the IT environment.

- Software updates and patches are applied to operating systems and applications running on virtual machines or servers. This directly secures the computing resources, placing it in the Compute layer.
- Multifactor authentication (MFA) is a core security practice used to verify a user's identity before granting them access to resources. This falls squarely under the Identity and access management layer.
- A surveillance camera is a physical device used to monitor and protect the physical location of IT infrastructure, such as a datacenter. This makes it a component of the Physical security layer.

References:

Microsoft Azure Documentation, "What is defense in depth?": This document outlines the distinct layers of security in a cloud environment. It specifies that the Compute layer involves "securing access to virtual machines," for which timely patching is essential. It defines the Identity & access layer as controlling "access to infrastructure and change control," where MFA is a key technology. The Physical security layer is described as the "first line of defense to protect computing hardware in the datacenter," which includes surveillance.

Microsoft Learn. (2023, September 21). What is defense in depth? Cloud Adoption Framework.

National Institute of Standards and Technology (NIST) Special Publication 800-53, Revision 5: This publication details security and privacy controls. The controls align directly with the layers in the question:

PE-6 (Monitoring Physical Access): Recommends monitoring physical access to a facility using "surveillance equipment," mapping directly to Physical Security.

IA-2 (Identification and Authentication): Describes requirements for authenticating users, including the use of "multi-factor authentication," which is a cornerstone of Identity and Access.

SI-2 (Flaw Remediation): Mandates the timely installation of "security-relevant software and firmware updates (patches)," a key activity in securing the Compute layer.

NIST. (2020, September). Security and Privacy Controls for Information Systems and Organizations (Special Publication 800-53, Rev. 5). <https://doi.org/10.6028/NIST.SP.800-53r5>
Carnegie Mellon University, "Defense in Depth" Course Material: University courseware on cybersecurity frequently uses the defense-in-depth model. Materials explain that securing compute nodes involves system hardening and patching (Compute), managing user credentials and access rights involves authentication mechanisms like MFA (Identity and access), and protecting the physical servers and network hardware requires facility controls like cameras (Physical security).

Carnegie Mellon University Software Engineering Institute. (2012). INSURE Course Material - Defense in Depth.

Question: 359

DRAG DROP Match the cloud computing benefits to the appropriate descriptions To answer, drag the appropriate service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point

Answer Area	
Agility	The ability to quickly deploy and configure cloud-based resources as app requirements change.
Disaster recovery	The ability to use cloud-based backup services to restore resources in the event of an outage.
Elasticity	The ability to dynamically scale the resources available to a cloud app.

Answer:

Elasticity: The ability to dynamically scale the resources available to a cloud app.

Disaster recovery: The ability to use cloud-based backup services to restore resources in the event of an outage.

Agility: The ability to quickly deploy and configure cloud-based resources as app requirements change.

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Explanation:

Elasticity refers to the cloud's ability to automatically add or remove compute resources like CPU, memory, or storage to meet changing demands. This is also known as scaling out (adding resources) and scaling in (removing resources).

Disaster recovery is the process of restoring data and services in a secondary, backed-up location after a failure or outage at the primary location. This ensures business continuity.

Agility is the ability to provision and configure cloud resources rapidly. This speed allows organizations to respond quickly to market changes and application requirements, reducing the time it takes to deploy new services.

References:

Microsoft Azure Documentation. "What is elasticity?" in Cloud elasticity overview. Microsoft Learn. This document states, "Cloud elasticity is the ability to dynamically provision and de-provision computer processing, memory, and storage resources to meet changing demands without worrying about capacity planning and engineering for peak usage." This directly supports the match for Elasticity.

Microsoft Azure Documentation. "What are the benefits of cloud computing?" Microsoft Learn.

This page describes Agility as the ability to "set up (provision) technology resources in minutes" and Disaster Recovery by noting that "cloud-based backup and recovery solutions make data backup... simpler and less time-consuming."

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R. H., Konwinski, A., ... & Zaharia, M. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58. On page 51, the paper defines Elasticity as the ability for a user to "...ask for a large number of resources for a short amount of time... and then release them," which aligns with dynamic scaling. It discusses Agility by contrasting the weeks-long process of acquiring traditional hardware with the immediate availability of cloud resources. (DOI: <https://doi.org/10.1145/1721654.1721672>)

Question: 360

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

Statements	Yes	No
Identities stored in an on-premises Active Directory can be synchronized to Azure Active Directory (Azure AD).	<input type="radio"/>	<input type="radio"/>
Identities stored in Azure Active Directory (Azure AD), third-party cloud services, and on-premises Active Directory can be used to access Azure resources.	<input type="radio"/>	<input type="radio"/>
Azure has built-in authentication and authorization services that provide secure access to Azure resources.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: Yes

Statement 2: Yes

Statement 3: Yes

Explanation:

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Yes. On-premises Active Directory (AD) identities can be synchronized to Azure Active Directory (Azure AD) using a service called Azure AD Connect. This creates a common identity for users, allowing them to access both on-premises applications and cloud services like Microsoft 365, Azure, and other SaaS applications integrated with Azure AD. This process is fundamental to creating a hybrid identity environment.

Yes. Azure AD serves as a central identity provider. It can use its own native identities, synchronized on-premises AD identities, and federated identities from third-party services (e.g., other cloud providers or identity systems) to grant access to Azure resources. This is accomplished through features like Azure AD B2B collaboration and federation, enabling a unified access management strategy across different identity sources.

Yes. Azure provides comprehensive, built-in services for identity and access management. Azure Active Directory is the core service for authentication (verifying identity). Azure Role-Based Access Control (RBAC) is the primary service for authorization (granting permissions), which works with Azure AD to ensure that authenticated users have the appropriate level of access to specific Azure resources.

References:

Microsoft Learn. "What is hybrid identity with Azure Active Directory?" Microsoft Entra Documentation. States, "Hybrid identity is creating a common user identity... This is accomplished by synchronizing your on-premises Active Directory with Azure AD."

Microsoft Learn. "What is Azure AD Connect?" Microsoft Entra Documentation. Describes Azure AD Connect as the tool "for connecting your on-premises identity infrastructure to Microsoft Azure AD."

Microsoft Learn. "Authentication vs. authorization." Microsoft Entra Documentation. Explains, "Azure Active Directory (Azure AD) is a cloud-based identity and access management service... Azure uses Azure AD to authenticate sign-ins for Azure resources... For authorization, Azure provides Azure role-based access control (Azure RBAC) at the subscription level."

Microsoft Learn. "What is Azure role-based access control (Azure RBAC)?" Azure Documentation. Defines Azure RBAC as "the authorization system you use to manage access to Azure resources." It clarifies that you assign roles to users, groups, and service principals.

Question: 361

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

Statements	Yes	No
Azure Files is an example of infrastructure as a service (IaaS).	<input type="radio"/>	<input type="radio"/>
A DNS server that runs on an Azure virtual machine is an example of platform as a service (PaaS).	<input type="radio"/>	<input type="radio"/>
Microsoft Intune is an example of software as a service (SaaS).	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

Azure Files is a Platform as a Service (PaaS) offering. Microsoft manages the underlying virtual machines, operating systems, and hardware, providing a managed file share service. The consumer only manages the data and access to the shares, not the underlying infrastructure.

A DNS server running on an Azure virtual machine is an example of Infrastructure as a Service (IaaS). In the IaaS model, the cloud provider (Microsoft) manages the physical infrastructure, but the consumer is responsible for managing the operating system, patching, and the software installed on the virtual machine, such as the DNS server application.

Microsoft Intune is a cloud-based unified endpoint management solution. It is delivered as a complete, ready-to-use software product on a subscription basis, which is the definition of Software as a Service (SaaS).

References:

Microsoft Azure Documentation, "What is Platform as a service (PaaS)?". This document categorizes Azure storage services, which include Azure Files, as PaaS. It states, "With PaaS, hardware and an application-software platform are provided and managed by an outside service provider".

Microsoft Azure Documentation, "What is IaaS?". This resource explains that with IaaS, the IT administrator is responsible for managing the operating system, data, applications, middleware,

and runtime. This directly applies to running a DNS server on a self-managed Azure VM. Microsoft Azure Documentation, "Shared responsibility in the cloud". This document provides a clear matrix showing that for IaaS, the customer manages the "Operating system" and "Applications", while for PaaS, these are managed by the cloud provider. Microsoft Learn, "What is Microsoft Intune?". The official documentation describes Intune as a "cloud-based service that focuses on mobile device management (MDM) and mobile application management (MAM)," fitting the SaaS model where software is delivered as a managed service.

Question: 362

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

Statements	Yes	No
In an Azure virtual machine scale set, the virtual machines are configured identically.	<input type="radio"/>	<input type="radio"/>
The number of Azure virtual machines in a virtual machine scale set can increase automatically.	<input type="radio"/>	<input type="radio"/>
The number of Azure virtual machines in a virtual machine scale set can decrease automatically.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

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Azure Virtual Machine Scale Sets (VMSS) are designed to manage and deploy a group of identical, load-balanced virtual machines. By definition, all VM instances within a scale set are created from the same base image and configuration, ensuring uniformity.

A key feature of VMSS is autoscaling, which allows the number of VM instances to automatically change in response to demand or a defined schedule. This includes automatically scaling out (increasing the number of instances) when application demand rises and scaling in (decreasing the number of instances) when demand falls, thereby optimizing both performance and cost.

References:

Microsoft Azure Documentation, "What are virtual machine scale sets?".

Reference: In the "Why use virtual machine scale sets?" section, it states, "All VM instances are created from the same base OS image and configuration. This approach lets you easily manage hundreds of VMs without additional configuration tasks or network management."

Microsoft Azure Documentation, "Overview of autoscale in Microsoft Azure".

Reference: The overview section explains, "Autoscale allows you to have the right amount of resources running to handle the load on your application. It allows you to add resources to handle increases in load (scale out) and also save money by removing resources that are sitting idle (scale in)." This feature is explicitly available for Virtual Machine Scale Sets.

Question: 363

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

Statements	Yes	No
The Archive access tier for Azure Storage can be set at the account level.	<input type="radio"/>	<input type="radio"/>
The Cool access tier offers the lowest costs for storing blobs in Azure Storage.	<input type="radio"/>	<input type="radio"/>
After blobs are uploaded to an Azure Storage container, the access tier of the storage account can be changed.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

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The Archive access tier cannot be set at the account level. The default access tier for a storage account can only be set to Hot or Cool. The Archive tier must be set explicitly on individual blobs.

The Archive tier, not the Cool tier, offers the lowest storage costs. While the Cool tier is cheaper for storage than the Hot tier, the Archive tier provides the most cost-effective option for storing data that is rarely accessed.

The default access tier of a storage account is a configurable property that can be changed at any time, regardless of whether blobs already exist in the account. Changing this setting does not alter the tier of existing blobs but sets the default for new blobs uploaded without an explicit tier.

References:

Microsoft Azure Documentation, Azure Blob Storage access tiers - Hot, Cool, and Archive.

Reference: Under the "Account-level tiering" section, it states, "You can set the account access tier to either Hot or Cool... The Archive tier can only be set at the blob level."

Reference: In the "Summary of access tier options" comparison table, it clearly shows that the Archive tier has the "Lowest" storage cost, while the Cool tier is listed as "Lower."

Microsoft Azure Documentation, Set a blob's access tier.

Reference: Under the "Set the account default access tier" section, the procedure for changing

the tier via the Azure portal is described. It states, "You can change the default account access tier at any time."

Question: 364

HOTSPOT Select the answer that correctly completes the sentence.

An Azure container instance is an example of an Azure

compute service.
identity service.
networking service.
storage service.

Answer:

compute service.

Explanation:

An Azure Container Instance (ACI) is a service that runs a containerized application. Its primary function is to provide the necessary processing power (CPU) and memory to execute the code within that container. This act of executing code and running applications is the core definition of a compute service. While a container instance uses networking to be accessible and may connect to storage for data persistence, its fundamental purpose is computational. Azure's official service categorization places Container Instances squarely under the "Compute" category.

References:

Microsoft Learn. (2024). Choose an Azure compute service. In "Azure Architecture Center."

Microsoft. Retrieved from <https://learn.microsoft.com/en-us/azure/architecture/guide/technology-choices/compute-decision-tree>.

Reference Detail: This official documentation provides a decision tree for Azure compute services and explicitly lists Azure Container Instances under the "Containers" section, which itself is a sub-category of "Compute."

Microsoft Learn. (2023). Describe Azure compute and networking services - Azure Fundamentals.

Microsoft. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-compute-networking-services/2-describe-azure-virtual-machines>.

Reference Detail: In the summary section of this AZ-900 training module, Container Instances are listed as one of the key Azure compute services alongside Virtual Machines, App Services, and Azure Functions.

Microsoft Learn. (2024). What is Azure Container Instances?. Microsoft. Retrieved from <https://learn.microsoft.com/en-us/azure/container-instances/container-instances-overview>.

Reference Detail: The introductory paragraph describes Azure Container Instances as a solution to "run containers on Microsoft Azure without having to manage servers," which defines its role as

a platform for executing application workloads, i.e., compute.

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Question: 365

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

Statements	Yes	No
You must install Azure Cloud Shell on your computer before you can use it.	<input type="radio"/>	<input type="radio"/>
The Azure Command-Line Interface (CLI) is installed by default in Windows 11.	<input type="radio"/>	<input type="radio"/>
Azure PowerShell can be used on computers that run Windows, Linux, or macOS.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

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Azure Cloud Shell: This statement is false. Azure Cloud Shell is a browser-based, interactive shell for managing Azure resources. It's accessed directly through the Azure portal, shell.azure.com, or integrated into tools like Visual Studio Code and the Azure mobile app. It's a Microsoft-managed environment and does not require any local installation on your computer.

Azure CLI: This statement is false. The Azure Command-Line Interface (CLI) is a powerful tool for managing Azure resources, but it is not included in a default installation of Windows 11. It must be installed separately by the user, for instance, by using the MSI installer or the Windows Package Manager (winget).

Azure PowerShell: This statement is true. The modern Azure PowerShell Az module is cross-platform, built on .NET. It can be installed and run on various operating systems, including Windows (using PowerShell 5.1 or newer), Linux, and macOS, providing a consistent management experience across different environments.

References:

Azure Cloud Shell:

Microsoft Learn. (2024). Overview of Azure Cloud Shell. "Cloud Shell is a browser-based shell for managing and developing Azure resources... Because it's a cloud-based service, you don't have

to install anything on your local machine to use it."

Azure CLI Installation:

Microsoft Learn. (2024). How to install the Azure CLI on Windows. This document details the procedures for manually installing the Azure CLI using an MSI package or through package managers like winget, confirming it is not a built-in component of the operating system.

Azure PowerShell Cross-Platform Support:

Microsoft Learn. (2024). Install the Azure Az PowerShell module. This document provides specific installation instructions for Windows, Linux, and macOS platforms. The "Prerequisites" section confirms its compatibility across these operating systems.

Question: 366

HOTSPOT Select the answer that correctly completes the sentence.

The Azure Migrate: Server Assessment tool
The Azure Total Cost of Ownership (TCO) calculator
The Database Migration Assistant
The pricing calculator in Azure

can calculate cost savings due to reduced electricity consumption
as a result of migrating on-premises Microsoft SQL servers to Azure.

Answer:

The Azure Total Cost of Ownership (TCO) calculator

Explanation:

The Azure Total Cost of Ownership (TCO) Calculator is the correct tool for this scenario. It is specifically designed to help users estimate the cost savings they could realize by migrating their on-premises workloads to Azure. A key feature of the TCO calculator is its ability to account for various on-premises infrastructure costs, including hardware, software licensing, and operational costs such as electricity, cooling, and IT labor. By inputting the details of an existing on-premises environment, the tool generates a comparative report showing the TCO for both on-premises and Azure, explicitly highlighting savings from reduced operational overhead like power consumption.

The other tools serve different purposes:

- Azure Migrate: Server Assessment focuses on discovery, readiness assessment, and estimating the running costs in Azure, but not on a detailed on-premises TCO comparison.
- Database Migration Assistant assesses database compatibility for migration.
- The Pricing Calculator estimates the cost of Azure services without comparing them to on-premises costs.

References:

Microsoft Learn. "What is the Total Cost of Ownership (TCO) Calculator?". In Microsoft Cloud Adoption Framework for Azure. This document states, "The TCO Calculator helps you estimate the cost savings you can realize by migrating your workloads to Azure... Add your workloads... Adjust your assumptions. Adjust the assumptions for cost categories, such as electricity prices, IT labor rates, and hardware costs."

Microsoft Learn. "Azure Total Cost of Ownership (TCO) Calculator". This official tool page prompts users to define their on-premises workloads, including servers, databases, storage, and

networking, and then customizes assumptions for cost factors, explicitly listing "Electricity cost" as a key variable in the on-premises cost calculation.

Question: 367

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

Statements	Yes	No
Data that is stored in an Azure Storage account automatically has at least three copies.	<input type="radio"/>	<input type="radio"/>
All data that is copied to an Azure Storage account is backed up automatically to another Azure data center.	<input type="radio"/>	<input type="radio"/>
An Azure Storage account can contain only up to 2 TB of data and up to one million files.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: Yes

Statement 2: No

Statement 3: No

Explanation:

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Data that is stored in an Azure Storage account automatically has at least three copies.

- Yes. The most basic redundancy option available for an Azure Storage account is Locally-Redundant Storage (LRS). LRS maintains three synchronous copies of your data within a single physical data center in the primary region. All other redundancy options (ZRS, GRS, GZRS) create three or more copies, so any data in Azure Storage has at least three copies by default.

All data that is copied to an Azure Storage account is backed up automatically to another Azure data center.

- No. This statement is false because the replication to another data center depends entirely on the chosen redundancy configuration. If a user selects Locally-Redundant Storage (LRS), the three data copies are all within a single data center. Only geo-redundant options, such as Geo-Redundant Storage (GRS) or Geo-Zone-Redundant Storage (GZRS), automatically replicate data to a secondary region, which contains different data centers.

An Azure Storage account can contain only up to 2 TB of data and up to one million files.

- No. This statement is incorrect. The capacity limit for a standard Azure Storage account is 5 PiB (petabytes), which is significantly more than 2 TB. There is no explicit limit of one million files; the limits are based on total capacity, ingress/egress rates, and requests per second.

References:

Microsoft Azure Documentation. Azure Storage redundancy. Microsoft Learn. Retrieved September 12, 2025.

Under the section "Locally-redundant storage," it states: "Locally-redundant storage (LRS) copies your data synchronously three times within a single physical location in the primary region." This supports the "Yes" for the first statement and the "No" for the second statement, as LRS does not copy to another data center.

Microsoft Azure Documentation. Scalability and performance targets for standard storage accounts. Microsoft Learn. Retrieved September 12, 2025.

In the table "Scale targets for standard storage accounts," the value for "Capacity of a standard storage account" is listed as "5 PiB." This directly contradicts the 2 TB limit mentioned in the third statement.

Question: 368

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

Statements	Yes	No
A Platform as a Service (PaaS) solution provides full control of operating systems that host applications.	<input type="radio"/>	<input type="radio"/>
A Platform as a Service (PaaS) solution provides additional memory to apps by changing pricing tiers.	<input type="radio"/>	<input type="radio"/>
A Platform as a Service (PaaS) solution can automatically scale the number of instances.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

Yes

Explanation:

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No: In a Platform as a Service (PaaS) model, the cloud provider manages the underlying infrastructure, including the servers and operating systems. The consumer manages their applications and data but does not have control over the OS. Full control of the operating system is a characteristic of Infrastructure as a Service (IaaS).

Yes: PaaS offerings are typically structured in service plans or pricing tiers. To vertically scale an application (scale up) by adding more resources like memory or CPU, the consumer changes to a higher, more capable pricing tier.

Yes: A core feature of PaaS is elasticity, which includes the ability to automatically scale horizontally (scale out) by adding more application instances to handle increased load and scaling in by removing instances during periods of low demand.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology. In Section 2, the definition of PaaS states, "The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications." <https://doi.org/10.6028/NIST.SP.800-145>

Microsoft Azure Documentation. (2023). "Scale up an app in Azure App Service." Microsoft Learn. This document states, "When you scale up, you go from a lower pricing tier to a higher pricing tier... A higher tier gives you more CPU cores, memory, and disk space..." This directly confirms that changing pricing tiers provides additional resources like memory.

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., ... & Zaharia, M. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58. Section 3.1, "Elasticity and the Illusion of Infinite Resources," discusses how cloud services, including PaaS, provide automatic scaling as a key property. <https://doi.org/10.1145/1721654.1721672>

Question: 369

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

Statements	Yes	No
North America is represented by a single Azure region.	<input type="radio"/>	<input type="radio"/>
Every Azure region has multiple datacenters.	<input type="radio"/>	<input type="radio"/>
Data transfers between Azure services located in different Azure regions are always free.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

CertMage.com

North America is represented by a single Azure region: No. North America is a geography that contains numerous distinct Azure regions, such as East US, West US, Canada Central, and Canada East. A geography is a market, typically containing two or more regions, that preserves data residency and compliance boundaries.

Every Azure region has multiple datacenters: Yes. An Azure region is, by definition, a set of datacenters deployed within a latency-defined perimeter. This design ensures high availability and resiliency for services deployed within that region. Regions may also feature Availability Zones, which are physically separate locations (each with one or more datacenters) within the region for enhanced fault tolerance.

Data transfers between Azure services located in different Azure regions are always free: No. While data ingress (inbound) to Azure regions is generally free, data egress (outbound) between different Azure regions incurs costs. This is a standard billing practice for cloud providers, and the specific cost varies based on the source and destination regions and the amount of data transferred.

References:

Microsoft Azure Documentation. "Azure geographies". Microsoft Docs. Accessed September 12, 2025. This document explicitly lists multiple regions within the Americas geography, including numerous regions in the United States and Canada (North America).

Microsoft Azure Documentation. "Regions and Availability Zones in Azure". Microsoft Docs. Accessed September 12, 2025. This official documentation states, "A region is a set of datacenters deployed within a latency-defined perimeter and connected through a dedicated regional low-latency network."

Microsoft Azure Documentation. "Bandwidth pricing details". Microsoft Azure. Accessed September 12, 2025. This pricing page details the costs associated with data transfers. Under the "Inter-Region" section, it provides specific per-GB rates for data transfers moving out of one Azure region and into another.

Question: 370

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

Statements	Yes	No
Cloud computing provides elastic scalability.	<input type="radio"/>	<input type="radio"/>
Customers can minimize capital expenditure (CapEx) by using a public cloud.	<input type="radio"/>	<input type="radio"/>
Cloud computing leverages virtualization to provide services to multiple customers simultaneously.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

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All three statements are true and describe fundamental characteristics and benefits of cloud computing.

- Elastic scalability is a core feature of cloud computing. It allows for the dynamic provisioning and de-provisioning of resources, such as processing power and storage, to match demand automatically. This ensures that applications have the resources they need to perform well, while also minimizing waste.
- Public cloud services operate on a pay-as-you-go model, which shifts IT spending from Capital Expenditure (CapEx)-upfront investment in physical hardware and infrastructure to Operational Expenditure (OpEx), ongoing, predictable service costs. This significantly reduces or eliminates the need for large initial capital outlays.
- Virtualization is the foundational technology that enables cloud computing. It abstracts computing resources from the physical hardware, allowing a single physical server to host multiple isolated virtual machines. This facilitates resource pooling and multi-tenancy, where multiple customers (tenants) can securely share the same infrastructure, leading to greater efficiency and cost-effectiveness.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (NIST Special Publication 800-145). National Institute of Standards and Technology.

Page 2, Section 2: Defines "Rapid elasticity" and "Resource pooling" as two of the five essential characteristics of cloud computing. It explicitly states that resources can be "elastically provisioned and released...to scale rapidly" and are "pooled to serve multiple consumers using a multi-tenant model." This supports statements 1 and 3.

DOI: <https://doi.org/10.6028/NIST.SP.800-145>

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58.

Page 51, Section 3: Discusses the economic advantages, explaining that cloud computing allows customers to "pay for attraction," converting capital expenses into operating expenses. This directly supports statement 2.

DOI: <https://doi.org/10.1145/1721654.1721672>

Zhang, Q., Cheng, L., & Boutaba, R. (2010). Cloud computing: state-of-the-art and research challenges. *Journal of Internet Services and Applications*, 1(1), 7-18.

Page 8, Section 2.1: States, "Virtualization is one of the key technologies for cloud computing. It allows to run multiple operating systems and applications on a single physical server." This section further explains how virtualization enables multi-tenancy, directly supporting statement 3.

DOI: <https://doi.org/10.1007/s13174-010-0007-6>

Question: 371

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

Statements	Yes	No
The Hot access tier is available for blob data that uses standard storage.	<input type="radio"/>	<input type="radio"/>
The Cool access tier is available for file shares in premium storage.	<input type="radio"/>	<input type="radio"/>
The Cool access tier can be configured at the storage account level.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

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The Hot access tier is a primary offering for frequently accessed data within Azure Blob Storage, which is available in General Purpose v2 (GPv2) and Blob storage accounts that utilize the standard performance tier.

Azure Files storage tiers (Hot, Cool, Transaction optimized) apply only to standard file shares. Premium file shares use solid-state drives (SSDs) for high I/O workloads and do not utilize the Cool access tier.

For blob storage, the default access tier for new objects can be set at the storage account level. The available options for this account-level setting are Hot and Cool. The Archive tier can only be set at the individual blob level.

References:

Microsoft Azure Documentation, "Hot, Cool, and Archive access tiers for blob data," Azure Storage.

Relevance for Statement 1: This document states that access tiers are supported in General Purpose v2 (GPv2) and Blob Storage accounts, which are standard storage types. The "Hot access tier" section details its use for actively used data.

Relevance for Statement 3: Under the section "Setting the account access tier," the

documentation confirms, "You can set the default account access tier to Hot or Cool when you create a storage account."

Microsoft Azure Documentation, "Azure Files storage tiers," Azure Files.

Relevance for Statement 2: This document explicitly outlines that the Hot and Cool tiers are features of standard file shares. The section on "Premium file shares" describes a provisioned performance model without mentioning Hot or Cool tiers, clarifying that these tiers are not applicable to premium file shares.

Question: 372

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

Statements	Yes	No
You can add an Azure Resource Manager template to an Azure blueprint.	<input type="radio"/>	<input type="radio"/>
You can assign an Azure blueprint to a resource group.	<input type="radio"/>	<input type="radio"/>
You can use Azure Blueprints to grant permissions to a resource.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

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Yes: An Azure blueprint is composed of artifacts. Azure Resource Manager (ARM) templates are one of the core artifact types you can add to a blueprint definition to deploy resources like virtual networks or storage accounts.

No: Azure Blueprints are assigned at the subscription scope. While the artifacts within the blueprint (like ARM templates) are deployed to resource groups within that subscription, the blueprint assignment itself cannot target a resource group directly.

Yes: Azure Blueprints can include a role assignment artifact. This artifact is used to grant specific RBAC (Role-Based Access Control) roles—which define permissions to users, groups, or service principals for the resources deployed by the blueprint.

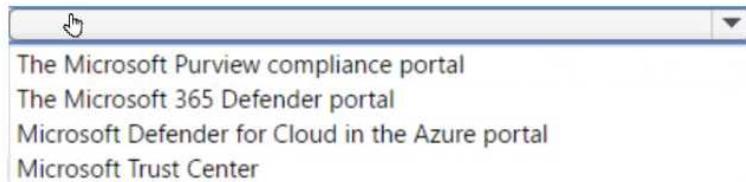
References:

Microsoft Documentation, Azure Blueprints, "Blueprint artifacts" section: This document explicitly lists the supported artifacts for a blueprint definition. It states, "A blueprint is made up of artifacts. Azure Blueprints currently supports the following resources as artifacts: Resource Groups, Azure Resource Manager templates, Policy Assignments, Role Assignments." This source directly confirms that ARM templates and Role Assignments are valid blueprint artifacts.

Microsoft Documentation, Azure Blueprints, "Blueprint assignment" section: This official documentation specifies the scope of a blueprint assignment. It clarifies, "The blueprint definition is assigned to a subscription when it's assigned through Azure portal... The scope for the blueprint assignment must be at or under the location of the blueprint definition." This confirms that the assignment target is a subscription, not a resource group.

Question: 373

HOTSPOT Select the answer that correctly completes the sentence.



provides in-depth information about security, privacy,

compliance offerings, policies, and features across Microsoft cloud products.

Answer:

Microsoft Trust Center

Explanation:

The Microsoft Trust Center is the correct answer because it serves as a centralized public-facing resource for information regarding Microsoft's principles on security, privacy, compliance, and transparency. It provides access to a wide range of content, including audit reports, compliance checklists for various regulations (like GDPR and HIPAA), white papers, and detailed documentation on how Microsoft's cloud services are built and operated securely. The other options are operational portals:

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- The Microsoft Purview compliance portal is used by organizations to manage their own data governance and compliance requirements.
- The Microsoft 365 Defender portal is for managing and responding to security threats within a Microsoft 365 environment.
- Microsoft Defender for Cloud is a tool within the Azure portal for managing the security posture of cloud resources.

References:

Microsoft Learn, "What is the Microsoft Trust Center?". Microsoft Docs. "The Microsoft Trust Center is a website that provides information and details about how Microsoft implements and supports security, privacy, compliance, and transparency in all our cloud products and services. The Trust Center is an important part of the Microsoft Trusted Cloud Initiative and provides support and resources for the legal and compliance community."

Microsoft Learn, "Describe the Microsoft Trust Center". Module: Describe the service and management principles of Azure. "The Trust Center is a public-facing website that provides easy access to information, tools, and other resources about Microsoft's security, privacy, and

compliance practices."

Microsoft Learn, "Microsoft Purview compliance portal". Microsoft Docs. This document describes the Purview portal as the platform for "access to the data and tools you need to manage your organization's compliance needs," distinguishing it as an administrative tool rather than a general information resource about Microsoft's policies.

Question: 374

Which term represents the ability to increase the computing capacity of a virtual machine by adding memory or CPUs?

- A. horizontal scaling
- B. agility
- C. elasticity
- D. vertical scaling

Answer:

D

Explanation:

Vertical scaling, also known as scaling up, is the process of increasing the capacity of a single resource to handle a larger workload. This is achieved by adding more resources, such as CPUs, memory (RAM), or storage, to an existing virtual machine or server. The question directly describes this action by mentioning the addition of memory or CPUs to a virtual machine, which is the definition of vertical scaling.

Why Incorrect Options are Wrong:

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- A. horizontal scaling: This refers to adding more instances of a resource, such as adding more virtual machines to a pool, rather than increasing the capacity of a single instance.
- B. agility: This is a general cloud benefit that describes the ability to rapidly provision and de-provision resources to respond quickly to changing demands, not the specific act of increasing a VM's power.
- C. elasticity: This is the ability of a system to automatically scale resources (either vertically or horizontally) up and down in response to workload changes, not the scaling action itself.

References:

1. Microsoft Learn: Describe cloud concepts - Describe scalability. In the "Vertical scaling" section, it states, "Vertical scaling, also known as 'scaling up', is the process of adding resources to increase the power of an existing server. Some examples of vertical scaling are: adding more CPUs, or adding more memory." This directly supports the correct answer.
2. Microsoft Learn: Describe cloud concepts - Describe agility, elasticity, and scalability. This document defines elasticity as "the ability to automatically or dynamically increase or decrease resources as needed" and agility as "the ability to react quickly." This differentiates these terms from the specific action of vertical scaling.
3. Microsoft Azure Documentation: Autoscaling guidance - Scaling up and scaling out. This document clarifies the distinction: "Scaling up (or down) means changing the capacity of a

resource... For example, you can scale a VM to a larger VM size... Scaling out (or in) means adding or removing instances of a resource". This confirms the definitions used to evaluate the options.

Question: 375

DRAG DROP Match the term to the appropriate description. To answer, drag the appropriate term from the column on the left to its description on the right. Each term may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Terms	Answer Area	
authorization	Term	The ability to use the same credentials to access multiple resources and applications from different
multi-factor authentication (MFA)	Term	The process of identifying the access level of a user or service.
single sign-on (SSO)	Term	Requires several elements to identify a user or a service.

Answer:

Term 1: single sign-on (SSO) - The ability to use the same credentials to access multiple resources and applications from different.

Term 2: authorization - The process of identifying the access level of a user or service.

Term 3: multi-factor authentication (MFA) - Requires several elements to identify a user or a service.

Explanation:

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Single Sign-On (SSO) is an authentication scheme that allows a user to log in with a single ID and password to any of several related, yet independent, software systems. It streamlines the user experience by eliminating the need to re-enter credentials for each application.

Authorization is the security practice of determining a user's or service's level of access or permissions. It follows authentication (verifying who the user is) and answers the question, "What is this user allowed to do?"

Multi-Factor Authentication (MFA) is a security method that requires users to provide two or more verification factors to gain access to a resource. This layered approach adds a critical barrier, increasing security compared to single-factor authentication (like a password alone).

References:

National Institute of Standards and Technology (NIST) SP 800-63-3, Digital Identity Guidelines. Authorization is defined in Section 1.2, page 7: "The process of determining whether a requesting party has been allowed to access a specific resource." This directly corresponds to identifying a user's access level.

DOI: <https://doi.org/10.6028/NIST.SP.800-63-3>

National Institute of Standards and Technology (NIST) SP 800-63B, Digital Identity Guidelines:

Authentication and Lifecycle Management.

Multi-Factor Authentication (MFA) is detailed in Section 4.3, page 12: "Multi-factor authentication (MFA) is authentication using two or more different factors to achieve successively higher levels of assurance... The three authentication factors are something you know (e.g., a password...), something you have (e.g., an ID badge or a cryptographic key), and something you are (e.g., a fingerprint)." This aligns with the description of requiring "several elements."

DOI: <https://doi.org/10.6028/NIST.SP.800-63b>

Carnegie Mellon University, Software Engineering Institute, Common Sense Guide to Mitigating Insider Threats, 6th Edition.

Single Sign-On (SSO) is discussed in Practice 17, page 138: "Single sign-on (SSO) technologies allow a user to log in once to a system of affiliated applications and gain access to all of them without being prompted to log in again." This matches the description of using the same credentials for multiple resources.

Document ID: CMU/SEI-2022-TR-004

Question: 376

HOTSPOT Select the answer that correctly completes the sentence.

Azure Blob Storage is a data store for queuing and reliably delivering messages between applications. file share that can be mapped as a network drive. key/attribute store for non-relational, structured data. storage service optimized for very large objects, such as video files and bitmaps.

Answer:

storage service optimized for very large objects, such as video files and bitmaps.

Explanation:

Azure Blob Storage is Microsoft's object storage solution for the cloud. The term "blob" is an acronym for Binary Large Object. It is specifically optimized to store massive amounts of unstructured data, such as text, images, videos, and audio files.

The other options describe different Azure storage services:

- Azure Queue Storage is used for queuing and delivering messages.
- Azure Files provides managed file shares that can be mapped as network drives.
- Azure Table Storage is a NoSQL key-attribute store for non-relational, structured data.

References:

Microsoft Corporation. (2024). Introduction to Azure Blob storage. Microsoft Learn. Retrieved from <https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blobs-introduction>.

Section: "About Blob storage". This section states, "Azure Blob Storage is Microsoft's object storage solution for the cloud. Blob storage is optimized for storing massive amounts of unstructured data. Unstructured data is data that doesn't adhere to a particular data model or definition, such as text or binary data."

Microsoft Corporation. (2024). Compare Azure Blob Storage and Azure Files. Microsoft Learn. Retrieved from

<https://docs.microsoft.com/en-us/azure/storage/common/compare-blob-storage-azure-files>.

Section: "Scenarios". This document clarifies that Azure Files is for "lift and shift" applications requiring a file share, contrasting with Blob Storage's object store use cases.

Microsoft Corporation. (2023). What is Azure Queue Storage? Microsoft Learn. Retrieved from <https://docs.microsoft.com/en-us/azure/storage/queues/storage-queues-introduction>.

Section: "What is Queue Storage". This document defines Queue Storage as "a service for storing large numbers of messages. You access messages from anywhere in the world via authenticated calls using HTTP or HTTPS."

Microsoft Corporation. (2023). What is Azure Table storage? Microsoft Learn. Retrieved from <https://docs.microsoft.com/en-us/azure/storage/tables/table-storage-overview>.

Section: "What is Table storage". This source specifies that "Azure Table storage is a service that stores non-relational structured data (also known as structured NoSQL data) in the cloud, providing a key/attribute store with a schemaless design."

Question: 377

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

Statements	Yes	No
An Azure Virtual Desktop session host can run Windows 10 or Windows 11 only.	<input type="radio"/>	<input type="radio"/>
An Azure Virtual Desktop host pool that includes 20 session hosts supports a maximum of 20 simultaneous user connections.	<input type="radio"/>	<input type="radio"/>
Azure Virtual Desktop supports desktop and app virtualization.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

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Azure Virtual Desktop (AVD) session hosts support a broader range of operating systems than just Windows 10 and Windows 11. Supported OSes also include Windows Server 2022, Windows Server 2019, and Windows Server 2016. The use of "only" in the statement makes it factually incorrect.

This statement is incorrect because AVD supports multi-session operating systems (like Windows 11 and Windows 10 Enterprise multi-session). This allows a single session host (virtual machine) to handle multiple simultaneous user connections. Therefore, a host pool with 20 session hosts can support significantly more than 20 simultaneous users, depending on the VM size and user workload.

This is a core feature of Azure Virtual Desktop. The service is designed to deliver both full virtual desktop experiences and individual virtualized applications (published as RemoteApps) to users from the cloud.

References:

Microsoft Learn. Supported operating systems for Azure Virtual Desktop session hosts. Microsoft Docs. Retrieved September 12, 2025.

Reference Details: This document explicitly lists the supported client and server operating systems for AVD session hosts, including Windows 10, Windows 11, Windows Server 2016, Windows Server 2019, and Windows Server 2022, which contradicts the "only" claim in the first statement.

Microsoft Learn. Azure Virtual Desktop host pool load-balancing algorithms. Microsoft Docs. Retrieved September 12, 2025.

Reference Details: This article explains how users are distributed across session hosts in a pooled host pool. It describes the maxSessionLimit property, which defines the maximum number of concurrent sessions a single host can accept, confirming that one host can serve multiple users simultaneously.

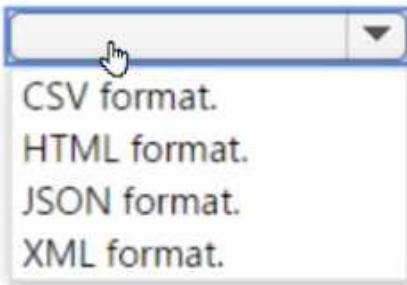
Microsoft Learn. What is Azure Virtual Desktop?. Microsoft Docs. Retrieved September 12, 2025.

Reference Details: The introductory section of this document defines Azure Virtual Desktop as "a desktop and app virtualization service that runs on the cloud." This directly confirms that the service supports both functionalities, validating the third statement.

Question: 378

HOTSPOT Select the answer that correctly completes the sentence.

Azure Resource Manager (ARM) templates use the



Answer:

JSON format.

Explanation:

Azure Resource Manager (ARM) templates are a declarative way to define the infrastructure and configuration for your Azure solutions. These templates use JavaScript Object Notation (JSON) to define the resources to be deployed, along with their properties and dependencies. This format allows for a structured, human-readable, and machine-parsable representation of the Azure infrastructure. Using JSON simplifies the process of automating deployments and ensures consistency across environments.

References:

Microsoft Azure Documentation, "What are ARM templates?", Microsoft Learn, last updated 2024. <https://learn.microsoft.com/en-us/azure/azure-resource-manager/templates/overview> (Section "Azure Resource Manager templates").

Microsoft Azure Documentation, "Authoring Azure Resource Manager templates", Microsoft Learn, last updated 2024. <https://learn.microsoft.com/en-us/azure/azure-resource-manager/templates/template-syntax> (Section "Template format").

MIT OCW, "Cloud & Enterprise Computing", Course 6.172, Lecture Notes. (Discusses the use of declarative formats like JSON for Infrastructure as Code in cloud platforms).

Question: 379

What should you use to track the costs of Azure resources?

- A. Tags
- B. usage and quotas
- C. Azure Quickstart templates
- D. budgets

Answer:

D

Explanation:

Azure Budgets is the primary tool used to proactively track and manage cloud spending. Within the Azure Cost Management and Billing service, you can create budgets for specific scopes, such as subscriptions or resource groups, to monitor actual spending against a defined threshold. Budgets allow you to configure automated alerts that notify stakeholders when costs approach or exceed the predefined limits. This enables organizations to control costs and ensure financial accountability for their Azure resource consumption.

Why Incorrect Options are Wrong:

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- A. Tags are metadata key-value pairs used to organize resources, which helps in filtering costs, but they do not track spending against a limit.
- B. usage and quotas relate to service consumption limits and subscription constraints, not the monetary tracking of resource costs against a plan.
- C. Azure Quickstart templates are pre-configured templates used to accelerate the deployment of Azure resources, not to monitor their ongoing costs.

References:

1. Microsoft Learn. (2023). Tutorial: Create and manage Azure budgets. In Azure Cost Management documentation. "Budgets in Cost Management help you plan for and drive organizational accountability. With budgets, you can account for the Azure services you consume or subscribe to during a specific period."
2. Microsoft Learn. (2023). AZ-900: Describe cost management in Azure. In Microsoft Azure Fundamentals courseware, Module: Describe Azure management and governance. "Budgets are used to manage costs... When a budget threshold is met, an alert is triggered."
3. Microsoft Learn. (2023). Use tags to organize your Azure resources and management hierarchy. In Azure Resource Manager documentation. "You apply tags to your Azure resources, resource groups, and subscriptions to logically organize them into a taxonomy... Tagging is critical to cost management." (Note: It clarifies tags are for organization to enable cost management, not

the tracking tool itself).

4. Microsoft Learn. (2023). Azure subscription and service limits, quotas, and constraints. In Azure documentation. This document details the operational limits (e.g., number of VMs per subscription), not financial tracking.

Question: 380

You plan to collect and analyze event details for five Azure virtual machines. You need to run queries to compare the event details collected from all the virtual machines. Which two tools should you use? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Azure Service Bus
- B. Azure Monitor
- C. Azure Service Health
- D. Log Analytics
- E. Azure Advisor

Answer:

B, D

Explanation:

Azure Monitor is the comprehensive monitoring service in Azure that collects, analyzes, and acts on telemetry from various sources, including Azure virtual machines. To fulfill the requirement, data from the five VMs is sent to Azure Monitor Logs. The data is stored in a Log Analytics workspace. Log Analytics is the specific tool within the Azure Monitor suite used to write and execute log queries using the Kusto Query Language (KQL). This allows for the detailed analysis and comparison of event data aggregated from all the virtual machines in a single interface.

Why Incorrect Options are Wrong:

- A. Azure Service Bus is a messaging service used to decouple applications and services; it is not designed for log collection or analysis.
- C. Azure Service Health provides information about the status of Azure services themselves, not for monitoring event details from user-managed virtual machines.
- E. Azure Advisor is a recommendation engine that provides guidance on optimizing Azure resources for cost, security, and performance, not for querying event logs.

References:

1. Microsoft Learn. (2024). Azure Monitor overview. "Azure Monitor collects and analyzes monitoring telemetry from your Azure and on-premises environments... Log Analytics is the primary tool in the Azure portal for writing log queries and interactively analyzing their results." Section: Introduction; Analyze monitoring data.
2. Microsoft Learn. (2024). Overview of Log Analytics in Azure Monitor. "Log Analytics is a tool in the Azure portal that's used to edit and run log queries with data in Azure Monitor Logs."

Section: Introduction.

3. Microsoft Learn. (2024). AZ-900: Describe monitoring tools in Azure. This learning module clearly distinguishes the roles of Azure Monitor, Azure Service Health, and Azure Advisor, confirming that only Azure Monitor is used for collecting and analyzing resource-specific telemetry.

Unit: 2 of 6 - Describe the purpose of Azure Monitor.

Unit: 4 of 6 - Describe the purpose of Azure Service Health.

Unit: 5 of 6 - Describe the purpose of Azure Advisor.

Question: 381

HOTSPOT 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
		Trust Center is part of Microsoft Defender for Cloud.	<input type="radio"/>	<input type="radio"/>
		Trust Center can only be accessed by users that have an Azure subscription.	<input type="radio"/>	<input type="radio"/>
		Trust Center provides information about the Azure compliance offerings.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

No

Yes

Explanation:

The Microsoft Trust Center is a public-facing website that serves as a central resource for information on security, privacy, compliance, and transparency across Microsoft's cloud services.

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- The Trust Center is an informational resource, whereas Microsoft Defender for Cloud is a technical security management tool for threat protection and posture management. They are separate and distinct offerings.
- The Trust Center is a publicly accessible website. It does not require an Azure subscription or any form of sign-in to access the vast majority of its resources and information.
- A primary function of the Trust Center is to provide detailed documentation, reports, and information about how Microsoft services, including Azure, adhere to a wide range of global, regional, and industry-specific compliance standards and regulations.

References:

Microsoft Learn. (n.d.). What is the Microsoft Trust Center?. Microsoft Azure Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/security/fundamentals/trust-center>. This document states, "The Microsoft Trust Center is a website that provides information and details about how Microsoft implements and supports security, privacy, compliance, and transparency in all our cloud products and services... The Trust Center is an important part of the Microsoft Trusted Cloud Initiative and provides support and resources for the legal and compliance community." This confirms it is a public website and its purpose is informational.

Microsoft Learn. (n.d.). Explore the Trust Center. AZ-900: Microsoft Azure Fundamentals course material. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-trust-center-service-trust-portal-privacy/2-explore-trust-center>.

This official courseware states, "The Trust Center is a public-facing website... You can find information about compliance with standards and regulations such as ISO 27001, SOC 1/2/3, and GDPR." This directly supports the answers that the site is public (No login required) and provides compliance information (Yes).

Question: 382

You need to compare a company's cloud usage to industry standard best practices. What should you use?

- A. Azure Monitor
- B. Azure Advisor
- C. Application Insights in Azure Monitor
- D. Azure Service Health

Answer:

B

Explanation:

Azure Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments. It analyzes your resource configuration and usage telemetry and then provides recommendations across five pillars: Reliability, Security, Performance, Operational Excellence, and Cost. This service is specifically designed to compare your current cloud usage against Microsoft's established best practices and provide actionable guidance for improvement, directly addressing the user's need.

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Why Incorrect Options are Wrong:

- A. Azure Monitor: Azure Monitor collects and analyzes telemetry data for performance and availability. It tells you what is happening in your environment but does not provide proactive best practice recommendations.
- C. Application Insights in Azure Monitor: This is a feature of Azure Monitor focused specifically on application performance management (APM). It is too narrow in scope for evaluating overall cloud usage against best practices.
- D. Azure Service Health: This service provides information about the health of the Azure platform and services, not an analysis of your specific configuration or usage patterns against best practices.

References:

1. Microsoft Learn. (2024). What is Azure Advisor? "Azure Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments. It analyzes your resource configuration and usage telemetry and then recommends solutions..."
2. Microsoft Learn. (2024). Microsoft Azure Well-Architected Framework. "Azure Advisor provides recommendations across the five pillars of the Well-Architected Framework."
3. Microsoft Learn. (2024). AZ-900: Describe management and governance on Azure - Azure Advisor. "Azure Advisor evaluates your Azure resources and makes recommendations to help

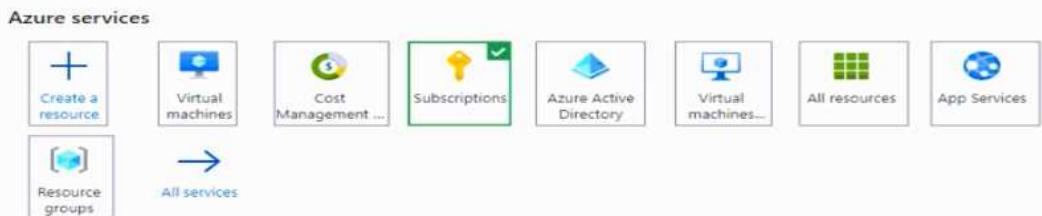
you improve reliability, security, and performance, achieve operational excellence, and reduce costs."

4. Microsoft Learn. (2024). Azure Monitor overview. "Azure Monitor helps you maximize the availability and performance of your applications and services. It delivers a comprehensive solution for collecting, analyzing, and acting on telemetry..." (Note: This describes monitoring, not best practice comparison).

Question: 383

HOTSPOT You need to create a new user for an Azure subscription. What should you use? To answer, select the service in the answer area.

Answer Area



Answer:

Azure Active Directory

Explanation:

Azure Active Directory (Azure AD), now known as Microsoft Entra ID, is Microsoft's cloud-based identity and access management service. Its core function is to manage users and groups and control access to applications and resources. To create a new user for an Azure subscription, an administrator must use Azure AD. The other services listed serve different purposes: Azure Monitor is for performance and health monitoring, Azure Policy enforces organizational rules, Azure Service Health tracks the health of Azure services, Azure Advisor provides optimization recommendations, and Azure Cost Management + Billing is for managing expenses.

References:

1. Microsoft Learn. (2023). Quickstart: Add new users to Azure Active Directory. "You can create a new user in your organization in your Azure Active Directory (Azure AD) tenant." Retrieved from <https://learn.microsoft.com/en-us/azure/active-directory/fundamentals/add-users-azure-active-directory>, Introduction section.
2. Microsoft Learn. (2023). What is Azure Active Directory?. "Azure Active Directory (Azure AD) is Microsoft's cloud-based identity and access management service, which helps your employees sign in and access resources..." Retrieved from <https://learn.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-whatis>, Introduction section.

Question: 384

Your company has an Azure subscription that contains several resources. You need to identify which department is responsible for the cost of each resource. What should you use?

- A. tags
- B. alerts
- C. budgets

Answer:

A

Explanation:

Tags are key-value pairs of metadata that you can apply to Azure resources. They are a fundamental tool for organizing resources. To identify which department is responsible for the cost of each resource, you can apply a tag with a key like 'Department' or 'CostCenter' and a value corresponding to the department's name (e.g., 'Marketing', 'IT'). Azure Cost Management and billing reports can then use these tags to filter and group costs, providing a clear breakdown of spending by department. This directly addresses the need to attribute costs to specific business units.

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Why Incorrect Options are Wrong:

- B. alerts: Alerts are notifications triggered by specific events or metric thresholds, such as high CPU usage or when costs exceed a predefined limit. They do not organize or identify resources by department.
- C. budgets: Budgets are used to set spending limits and track costs against those limits. While a budget can be scoped to a department by filtering on a tag, the budget itself is a control mechanism, not the tool used for the initial identification and categorization of the resources.

References:

1. Microsoft Learn, "Use tags to organize your Azure resources and management hierarchy."
Section: "Cost management and optimization"
Content: "Tags enable you to group resources for cost reporting. For example, if you're running multiple projects for different organizations, you can use tags to group resources by cost center or department. You can also use tags to categorize costs by runtime environment, such as the billing for resources running in a production environment."
2. Microsoft Learn, "AZ-900: Describe features and tools in Azure for governance and compliance."
Section: "Describe the purpose of tags"
Content: "Resource tags are another way to organize resources. Tags provide extra information,

or metadata, about your resources... For example, you can apply tags that describe the department that a resource belongs to, such as marketing, finance, or human resources."

3. Microsoft Learn, "Tutorial - Create and manage Azure budgets."

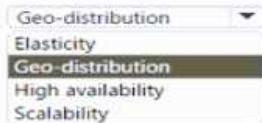
Section: "Prerequisites" and "Create a budget in the Azure portal"

Content: This document explains that budgets help "plan for and drive organizational accountability" by setting spending quotas. It shows that to create a budget for a specific department, you must first add a filter, which often relies on a pre-existing tag. This confirms that tags are the underlying mechanism for identification.

Question: 385

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Geo-distribution enables Azure resources to be deployed close to users.

Elasticity

Geo-distribution

High availability

Scalability

Answer:

Geo-distribution

Explanation:

Geo-distribution is the correct term that describes the ability to deploy Azure resources across a global network of datacenters. This practice allows applications and data to be located physically closer to users, which minimizes network latency and enhances responsiveness. The other options describe different cloud concepts: elasticity refers to automatically scaling resources based on demand, high availability refers to ensuring continuous operation and minimizing downtime, and scalability is the ability to handle increased workloads. None of these directly address the geographical placement of resources.

References:

Microsoft Azure Documentation, "Azure regions and availability zones": This document explicitly states, "Azure has more global regions than any other cloud provider-offering the scale needed to bring applications closer to users around the world... By running applications in multiple zones, you can protect applications and data from a single datacenter failure." This directly links the concept of global regions to deploying resources closer to users.

Microsoft Azure Well-Architected Framework, "Performance efficiency principles": In the section "Design for scaling," the documentation defines scalability as the ability of a system to handle an increased load and elasticity as the ability to automatically add and remove resources to meet demand. This distinguishes them from geo-distribution.

Microsoft Azure Well-Architected Framework, "Reliability principles": The section "Design for high availability" defines high availability as the ability of the system to continue functioning even if some components fail. This focuses on uptime and resilience rather than geographical proximity to users.

Question: 386

HOTSPOT 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
Pay-As-You-Go (PAYG) is a consumption-based model.	<input type="radio"/>	<input type="radio"/>
Payments to cloud service providers are considered capital expenditures (CapEx).	<input type="radio"/>	<input type="radio"/>
The services provided through a consumption-based model are considered operational expenditures (OpEx).	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

The Pay-As-You-Go (PAYG) model is the cornerstone of cloud computing's consumption-based pricing, where you are billed only for the resources you actively use. This directly contrasts with traditional on-premises models.

Cloud service payments are classified as Operational Expenditure (OpEx), which are ongoing costs for running a business, like utility bills or subscriptions. You are paying for a service, not acquiring a physical asset.

Conversely, Capital Expenditure (CapEx) is the upfront spending on physical infrastructure like servers or data centers. A primary financial benefit of the cloud is shifting IT spending from a CapEx model (buying and owning hardware) to an OpEx model (renting and using services), which is what a consumption-based model facilitates.

References:

Microsoft Learn. (n.d.). Describe cloud service models. In "Microsoft Azure Fundamentals: Describe cloud concepts." Microsoft. Retrieved September 12, 2025. This module states, "Cloud computing is a consumption-based model... you only pay for what you use... Cloud computing shifts this to an operational expenditure (OpEx) model."

Microsoft Learn. (n.d.). Compare the pricing models. In "Microsoft Azure Fundamentals: Describe Azure architecture and services." Microsoft. Retrieved September 12, 2025. This section explains that the consumption-based model means "end users only pay for the resources that they use."

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58. Section 5, "The Economic Argument," discusses how cloud computing allows enterprises to convert capital expenses (servers) into operating expenses (utility computing costs). DOI: <https://doi.org/10.1145/1721654.1721672>

Question: 387

HOTSPOT 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
The Archive access tier is set at the storage account level.	<input type="radio"/>	<input type="radio"/>
The Hot access tier is recommended for data that is accessed and modified frequently.	<input type="radio"/>	<input type="radio"/>
The Cool access tier is recommended for long term backups.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

The Archive access tier is set at the blob level, not the storage account level. While a storage account has a default access tier setting, this default can only be set to Hot or Cool. The Archive tier must be applied explicitly to individual blobs.

The Hot access tier is optimized for data that is actively used. It has the lowest access costs but higher storage costs, making it ideal for data that is frequently read from and written to.

The Archive access tier, not the Cool tier, is the recommended and most cost-effective option for long-term backups. The Cool tier is designed for infrequently accessed data stored for shorter periods (at least 30 days), such as short-term backups and disaster recovery datasets.

References:

Microsoft Learn. (2024). Access tiers for Azure Blob Storage - hot, cool, and archive. Retrieved from <https://learn.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview>.

Section: "Account-level tiering": "You can set the account access tier to hot or cool. ... The archive tier can't be set as the account default tier."

Section: "Hot access tier": "Example usage scenarios for the hot access tier include: Data that's in active use or is expected to be accessed (read from and written to) frequently."

Section: "Archive access tier": "Example usage scenarios for the archive access tier include: Long-term backup, secondary backup, and archival datasets."

Question: 388

Which service can replace a resource lock automatically if the lock is removed?

- A. Azure Blueprints
- B. Azure Information Protection (AIP)
- C. Azure Backup
- D. Azure Advisor

Answer:

A

Explanation:

Azure Blueprints is a governance service used to define and deploy a repeatable set of Azure resources that adhere to an organization's standards. A core feature of Azure Blueprints is the ability to apply resource locks (ReadOnly or DoNotDelete) to the resources it deploys. This "blueprint lock" protects the resources from accidental modification or deletion, even by subscription owners. If a lock applied by a blueprint is removed, the blueprint assignment will reflect a non-compliant state. The blueprint itself serves as the authoritative definition, and its governance capabilities are the mechanism to enforce and re-apply the intended locked state to maintain compliance.

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Why Incorrect Options are Wrong:

- B. Azure Information Protection (AIP): This is a data governance service for classifying, labeling, and protecting documents and emails, not for locking Azure infrastructure resources.
- C. Azure Backup: This service is used for backing up and restoring data and virtual machines; it does not manage or enforce resource configurations like locks.
- D. Azure Advisor: This is a recommendation engine that provides best practice guidance for optimizing Azure resources; it does not actively enforce policies or replace locks.

References:

1. Microsoft Learn. (2023). Understand resource locking in Azure Blueprints. "The locking created by a blueprint assignment can be removed... When the lock is removed, Azure Blueprints shows the assignment as no longer being compliant with the blueprint definition." This confirms that Blueprints manage the state of the lock.
2. Microsoft Learn. (2023). Overview of Azure Blueprints. "With Azure Blueprints, the relationship between the blueprint definition (what should be deployed) and the blueprint assignment (what was deployed) is preserved. This connection supports improved tracking and auditing of deployments." This highlights the blueprint's role in maintaining a desired state, which includes locks.

3. Microsoft Learn. (2023). What is Azure Information Protection?. "Azure Information Protection (AIP) is a cloud-based solution that enables organizations to discover, classify, and protect documents and emails by applying labels to content." This defines AIP's scope as data, not infrastructure resources.

Question: 389

What is used to grant permission to Azure Virtual Desktop resources?

- A. role-based access control (RBAC) roles
- B. application security groups
- C. tags
- D. resource groups

Answer:

A

Explanation:

Azure role-based access control (RBAC) is the authorization system used to manage access to Azure resources. For Azure Virtual Desktop (AVD), specific built-in RBAC roles are used to grant permissions to users and administrators. For example, the "Desktop Virtualization User" role grants users permission to access and use the desktops and applications within an application group. Other roles, like "Desktop Virtualization Contributor," allow for the management of the AVD environment. This makes RBAC the direct mechanism for granting permissions to AVD resources.

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Why Incorrect Options are Wrong:

- B. application security groups: These are used to group virtual machines and define network security policies. They control network traffic, not permissions to manage or access Azure resources.
- C. tags: Tags are metadata labels applied to Azure resources for organization, management, and billing purposes. They do not grant permissions or control access.
- D. resource groups: A resource group is a container for Azure resources. While permissions can be applied at the resource group scope, the group itself is not the mechanism that grants permission; RBAC is.

References:

1. Microsoft Learn. (2023). What is Azure role-based access control (RBAC)? "Azure role-based access control (RBAC) is the authorization system you use to manage access to Azure resources... To grant access, you assign roles to users, groups, service principals, or managed identities at a particular scope."
2. Microsoft Learn. (2023). Built-in roles for Azure Virtual Desktop. "Azure Virtual Desktop uses Azure role-based access control (RBAC) to control access to resources. There are many built-in roles you can use..." This document then lists specific roles such as "Desktop Virtualization User" and "Desktop Virtualization Contributor."

3. Microsoft Learn. (2024). AZ-900: Describe identity, access, and security - Describe Azure role-based access control (RBAC). "Azure RBAC is an authorization system built on Azure Resource Manager that provides fine-grained access management of Azure resources."

Question: 390

You have an Azure subscription. You need to review your secure score. What should you use?

- A. Azure Monitor
- B. Azure Advisor
- C. Help - support
- D. Microsoft Defender for Cloud

Answer:

D

Explanation:

Microsoft Defender for Cloud is a cloud security posture management (CSPM) and cloud workload protection platform (CWPP) tool. A central feature of Defender for Cloud is the secure score, which measures an organization's security posture. It provides a numerical score based on security recommendations, helping you understand your current security situation and prioritize actions to improve it. The score is calculated based on the security controls and recommendations that are fulfilled within your Azure subscriptions.

Why Incorrect Options are Wrong:

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- A. Azure Monitor: This service focuses on collecting, analyzing, and acting on telemetry data for performance and availability, not for providing a security posture score.
- B. Azure Advisor: While Azure Advisor provides security recommendations, it does not calculate or display the specific "secure score." Its scope is broader, covering cost, performance, and reliability.
- C. Help + support: This is a portal for creating and managing support requests for technical, billing, or subscription issues, not for security posture assessment.

References:

1. Microsoft Learn Microsoft Defender for Cloud Documentation. "Secure score in Microsoft Defender for Cloud." This document explicitly states, "The central feature in Defender for Cloud that enables you to achieve security goals is the secure score." It details how the score is calculated and used.
2. Microsoft Learn Microsoft Defender for Cloud Documentation. "What is Microsoft Defender for Cloud?" Under the "Cloud security posture management (CSPM)" section, it identifies secure score as a core capability for assessing and strengthening security posture.
3. Microsoft Learn Azure Monitor Documentation. "Azure Monitor overview." This document describes Azure Monitor's function as a comprehensive solution for collecting and analyzing telemetry from cloud and on-premises environments, with no mention of a secure score feature.

4. Microsoft Learn Azure Advisor Documentation. "Introduction to Azure Advisor." This source defines Advisor as a personalized cloud consultant that provides recommendations across five pillars: Reliability, Security, Performance, Operational Excellence, and Cost. It does not mention the "secure score" feature.

Question: 391

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

You can access Compliance Manager from the



Answer:

Microsoft Service Trust Portal

Explanation:

Microsoft Purview Compliance Manager is a feature located within the Microsoft Purview compliance portal. However, of the choices provided, the Microsoft Service Trust Portal is the most appropriate answer because it serves as a direct access point.

The Service Trust Portal (servicetrust.microsoft.com) is a repository for documents about Microsoft's security, privacy, and compliance practices. Within this portal, there is a dedicated section for Compliance Manager that includes a direct link to launch the tool, which then redirects to its location in the Microsoft Purview compliance portal (compliance.microsoft.com). The other portals listed do not provide this direct or primary access.

References:

Microsoft Learn, Get started with Microsoft Service Trust Portal: This document describes the purpose of the Service Trust Portal as the central resource for information about Microsoft's compliance posture. It also details that resources like Compliance Manager are accessible from the portal. Under the "Service Trust Portal navigation and contents" section, it lists Compliance Manager as a key feature that can be accessed.

Microsoft Learn, Microsoft Purview Compliance Manager: This official documentation confirms the current location of the tool: "Microsoft Purview Compliance Manager is in the Microsoft Purview compliance portal." This establishes that while the tool lives in the Purview portal, the question asks where it can be accessed from, for which the Service Trust Portal is a valid and specific answer provided in the options.

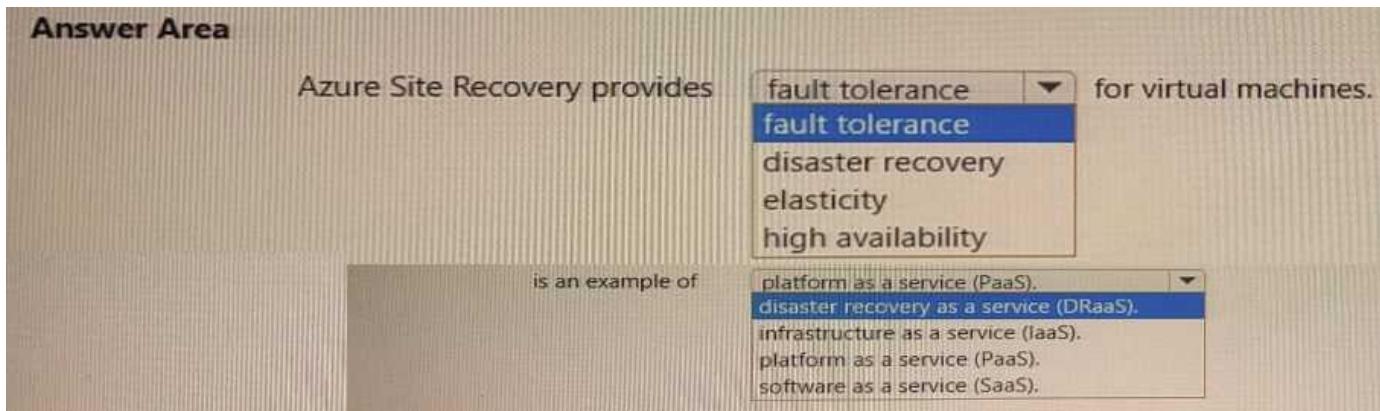
Question: 392

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Azure Site Recovery provides for virtual machines.

platform as a service (PaaS).
disaster recovery as a service (DRaaS).
infrastructure as a service (IaaS).
platform as a service (PaaS).
software as a service (SaaS).



Answer:

disaster recovery

disaster recovery as a service (DRaaS)

Explanation:

Azure Site Recovery is designed to ensure business continuity by keeping business apps and workloads running during outages. Its primary function is to replicate workloads from a primary site to a secondary location. If the primary site becomes unavailable due to a disaster, you can fail over to the secondary location and access your applications. While related to high availability, disaster recovery is more precise as it specifically deals with recovering from major outages (e.g., an entire region failure), which is the core purpose of Site Recovery.

Azure Site Recovery is a managed cloud service that provides the tools and orchestration for disaster recovery without requiring the customer to own or manage the secondary DR site's infrastructure. This model, where a vendor provides a comprehensive solution for disaster recovery on a subscription basis, is defined as Disaster Recovery as a Service (DRaaS). It abstracts the complexity of building and maintaining a traditional DR site, fitting neatly into the "as a service" cloud delivery model.

References:

Microsoft Corporation. (2024). What is Azure Site Recovery? Microsoft Azure Documentation. Retrieved September 12, 2025.

Reference Details: In the "Overview" section, the document explicitly states: "Azure Site Recovery is a native disaster recovery as a service (DRaaS), and Microsoft has been recognized as a leader in DRaaS based on completeness of vision and ability to execute by Gartner in the 2019 Magic Quadrant for Disaster Recovery as a Service." This directly supports both correct answers.

Microsoft Corporation. (2023). About Site Recovery. Microsoft Azure Documentation. Retrieved September 12, 2025.

Reference Details: The document's primary section, "What does Site Recovery provide?", details the service's role in a Business Continuity and Disaster Recovery (BCDR) strategy. It describes features like orchestrating replication and failover to a secondary region, which are the core components of a disaster recovery solution, not merely high availability or fault tolerance which typically operate within a single region or datacenter.

Varia, J. (2017, May). Cloud Best Practices for Financial Services. AWS Whitepaper, Amazon Web Services, Inc.

Reference Details: Page 17 discusses BCDR strategies. It defines Disaster Recovery (DR) as a strategy to recover from events that "render a primary site unavailable," such as regional power outages or natural disasters. It distinguishes DR from High Availability (HA), which handles smaller, localized failures. This supports the choice of "disaster recovery" as the more precise term for the functionality of a service like Azure Site Recovery.

Question: 393

HOTSPOT 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
		Azure Pay-As-You-Go pricing is an example of CapEx.	<input type="radio"/>	<input checked="" type="radio"/>
		Paying electricity for your datacenter is an example of OpEx.	<input checked="" type="radio"/>	<input type="radio"/>
		Deploying your own datacenter is an example of CapEx.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

Yes

Yes

Explanation:

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The statements evaluate the understanding of two fundamental accounting models: Capital Expenditure (CapEx) and Operational Expenditure (OpEx).

- CapEx involves spending money on physical infrastructure upfront. This includes costs like deploying a new datacenter, purchasing servers, and networking equipment. These are major, long-term investments. Therefore, "Deploying your own datacenter" is correctly identified as CapEx.
- OpEx is the ongoing cost of running a business, service, or product. This includes recurring expenses like electricity bills, software subscriptions, and staff salaries. Cloud services, such as Azure's Pay-As-You-Go model, are a prime example of OpEx because they shift the cost from a large upfront investment to a variable, consumption-based monthly bill. Thus, Azure's pricing is not CapEx, and paying for electricity is a classic example of OpEx.

References:

Microsoft Learn. (n.d.). Compare capital and operational expenditure. Microsoft Azure Fundamentals: Describe cloud concepts. Retrieved from Microsoft Learn.
Reference details: In the "Compare CapEx and OpEx" unit, the documentation explicitly states: "OpEx is spending on products and services as you need them... Cloud computing is an example

of OpEx because you subscribe to a service." It contrasts this with CapEx: "CapEx is typically a one-time, up-front expenditure to purchase or upgrade a tangible resource."

Microsoft Learn. (n.d.). What are Capital Expenditure (CapEx) and Operational Expenditure (OpEx)? Microsoft Azure Well-Architected Framework. Retrieved from Microsoft Learn.

Reference details: Under the "CapEx versus OpEx" section, it defines CapEx as including "physical datacenters, servers, and other hardware," while OpEx includes "electricity and other datacenter utility costs" and "cloud service subscriptions."

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R. H., Konwinski, A., Lee, G., Patterson, D. A., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58. <https://doi.org/10.1145/1721654.1721672>

Reference details: Section 3, "Economics," discusses how cloud computing allows customers to "transfer capital expenditure to operational expenditure," eliminating the need for upfront infrastructure investment by utilizing a pay-as-you-go model.

Question: 394

HOTSPOT 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
Cloud computing offers lower capital expenditure (CapEx) costs than on-premises deployments.	<input type="radio"/>
Cloud computing provides the same configuration options as on-premises deployments.	<input type="radio"/>
Cloud computing can scale when a business requires change.	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

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Cloud computing fundamentally changes IT financial models by shifting costs from Capital Expenditure (CapEx) to Operational Expenditure (OpEx). Instead of large, upfront investments in physical hardware, organizations pay a recurring fee, thus lowering initial CapEx.

However, the cloud provider manages the underlying physical infrastructure, meaning users do not have the same granular control over hardware selection and physical configuration as they would in their own data center.

A primary benefit of the cloud is elasticity, the ability to rapidly provision and de-provision resources. This allows services to scale automatically in response to business demands, such as increased traffic, without the lengthy procurement process required for on-premises hardware.

References:

Microsoft. (n.d.). Describe the benefits of using cloud services. Microsoft Learn. In the "Describe the cost benefits of the cloud" section, it explicitly states, "Cloud computing is a shift from capital expenditure (CapEx) to operational expenditure (OpEx)." It also describes scalability as a key agility benefit.

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology. Page 2. This document lists "Rapid

"elasticity" as one of the five essential characteristics of cloud computing. It also defines the service models (IaaS, PaaS, SaaS), which clarify the levels of consumer control, showing they differ from full on-premises control where the organization manages everything from networking to the physical infrastructure.

Armbrust, M., et al. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58. Section 4, "Obstacles and Opportunities." The paper discusses the limitations of cloud computing, including that the user is limited to the hardware and software configurations offered by the provider, which is a narrower range than the full set of options available when purchasing hardware for on-premises deployment. <https://doi.org/10.1145/1721654.1721672>

Question: 395

HOTSPOT 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
		With a consumption-based plan, you pay a fixed rate for all data sent to or from virtual machines hosted in the cloud.	<input type="radio"/>	<input checked="" type="radio"/>
		With a consumption-based plan, you reduce overall costs by paying only for extra capacity when it is required.	<input checked="" type="radio"/>	<input type="radio"/>
		Serverless computing is an example of a consumption-based plan.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

No

Yes

Explanation:

Statement 1: This is incorrect. A consumption-based model (also known as pay-as-you-go) is characterized by variable costs based on actual usage. A "fixed rate for all data" describes a flat-rate pricing model, which is the opposite of a consumption model where data transfer is typically metered per gigabyte.

Statement 2: This is incorrect. While a consumption-based plan helps reduce costs by avoiding payment for idle resources, the statement's wording is misleading. You don't pay "only for extra capacity"; you pay for all capacity you consume. For example, if you scale from one virtual machine to two, you pay for both machines, not just the second "extra" one. The key benefit is paying only for what you use, not just for the incremental additions.

Statement 3: This is correct. Serverless computing is a prime example of a consumption-based model. With serverless platforms like Azure Functions or AWS Lambda, you are billed based on the precise resources (e.g., execution time, memory allocated) your code consumes each time it runs. If the code is not running, there are no charges, perfectly embodying the pay-for-what-you-use principle.

References:

Microsoft Azure Documentation, "What is pay-as-you-go?": "With pay-as-you-go pricing, you pay only for the cloud services you use, with no upfront fees or long-term commitments." This directly contradicts the "fixed rate" idea in Statement 1 and clarifies the pay-for-what-you-use model that makes Statement 2's wording inaccurate.

Microsoft Azure Documentation, "Consumption plan hosting - Azure Functions": "The Consumption plan is a serverless hosting option for Azure Functions... With the Consumption plan, you pay for compute resources only when your functions are running." This official documentation explicitly categorizes serverless functions under a consumption plan, validating the answer for Statement 3.

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., ... & Zaharia, M. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58. (DOI: <https://doi.org/10.1145/1721654.1721672>). This foundational academic paper defines a key cloud attribute as the ability to "pay for use of computing resources on a short-term basis as needed" (p. 51), which supports the reasoning for all three statements.

Question: 396

HOTSPOT 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
		An Azure resource can have multiple Delete locks.	<input checked="" type="radio"/>	<input type="radio"/>
		An Azure resource inherits locks from its resource group.	<input checked="" type="radio"/>	<input type="radio"/>
		If an Azure resource has a Read-only lock, you can add a Delete lock to the resource.	<input checked="" type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

Explanation:

CertMage.com
An Azure resource, resource group, or subscription can have multiple, distinct lock objects applied to it. While applying a second Delete lock might seem redundant in effect, the system permits it. You can create multiple locks with different names on the same scope.

Lock inheritance is a key feature in Azure. When a lock is applied at a parent scope, such as a subscription or a resource group, all child resources within that scope automatically inherit the lock. For instance, a Delete lock on a resource group prevents the deletion of all resources contained within it.

A Read-only lock prevents all write operations on a resource. Adding a new lock is considered a write operation (Microsoft.Authorization/locks/write permission). Therefore, once a Read-only lock is in place on a resource, no further modifications, including the addition of other locks, can be made to that resource until the Read-only lock is removed.

References:

Microsoft Learn (Official Azure Documentation). Lock resources to prevent unexpected changes.
Reference for Inheritance: In the "Lock inheritance" section, it states, "When you apply a lock at a parent scope, all resources within that scope inherit the same lock."
Reference for Lock Types: The "Lock types" section explains, "ReadOnly means authorized users can read a resource, but they can't delete or update the resource. Applying this lock is similar to

restricting all authorized users to the permissions granted by the Reader role." The Reader role does not include permissions to write or delete locks.

Microsoft Learn (Official Azure Documentation). Azure built-in roles.

Reference for Permissions: The documentation for the "Reader" role confirms it does not have the Microsoft.Authorization/locks/* permission, which is required to add or delete locks. A ReadOnly lock effectively applies these permission restrictions to all users, regardless of their role.

Question: 397

HOTSPOT 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
The cost of outbound traffic from Azure is the same for all Azure regions.	<input type="radio"/>	<input checked="" type="radio"/>
Purchasing Azure services through an Enterprise Agreement (EA) requires you to spend a predetermined amount.	<input checked="" type="radio"/>	<input type="radio"/>
Microsoft defines the pricing structure of all third-party services sold through Azure Marketplace.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

Yes

No

Explanation:

CertMage.com

The cost of outbound traffic from Azure is the same for all Azure regions. (No) Azure groups its regions into geographical zones for billing purposes (e.g., Zone 1, Zone 2, Zone 3). The price for outbound data transfer (egress) varies significantly between these zones. For instance, transferring data out of a region in North America or Europe (Zone 1) is generally less expensive than transferring it from a region like Brazil South (Zone 3). Therefore, the cost is not uniform across all regions.

Purchasing Azure services through an Enterprise Agreement (EA) requires you to spend a predetermined amount. (Yes) An Azure Enterprise Agreement is designed for large organizations and is fundamentally based on a monetary commitment. The organization agrees to spend a specific, predetermined amount on Azure services over the agreement term (typically one to three years). This upfront commitment allows the organization to receive discounted pricing on Azure services.

Microsoft defines the pricing structure of all third-party services sold through Azure Marketplace. (No) In the Azure Marketplace, third-party vendors (Independent Software Vendors - ISVs) are responsible for defining the pricing models and rates for their own products and services. While Microsoft provides the platform for selling and billing, the vendors themselves decide whether to charge per hour, per user, or use a bring-your-own-license (BYOL) model, and they set the

corresponding prices.

References:

Statement 1: Microsoft Azure. (n.d.). Bandwidth pricing details. Microsoft Documentation.

Retrieved September 12, 2025. This page explicitly shows different pricing tiers for data transfer based on "Zones," which correspond to different geographical groupings of Azure regions.

Statement 2: Microsoft Azure. (n.d.). Microsoft Enterprise Agreement. Microsoft Azure Documentation. Retrieved September 12, 2025. In the "Overview" section, it is stated that an EA involves an "upfront monetary commitment" that provides customers with benefits like discounted pricing.

Statement 3: Microsoft Azure. (n.d.). Azure Marketplace billing and commercial considerations. Microsoft Partner Center Documentation. Retrieved September 12, 2025. This document outlines that publishers (third-party vendors) are responsible for selecting the appropriate offer type and pricing model for their solutions.

Question: 398

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

To save on the costs of an unused Azure virtual machine that runs Windows 10, you should

- shut down the virtual machine from a Remote Desktop session.
- disconnect the virtual machine during a Remote Desktop session.
- put the virtual machine in sleep mode from a Remote Desktop session.
- select Stop for the virtual machine from the Azure portal.
- shut down the virtual machine from a Remote Desktop session.**

Answer:

select Stop for the virtual machine from the Azure portal.

Explanation:

To stop billing for compute costs on an Azure Virtual Machine, the VM must be in a Stopped (deallocated) state. This is achieved by stopping the VM through the Azure portal, Azure CLI, or PowerShell. This action releases the allocated compute resources, such as the CPU and memory. In contrast, shutting down the VM from within the guest operating system (e.g., via a Remote Desktop session) only places it in a Stopped state. In this state, the hardware resources remain allocated to the VM, and therefore, compute charges continue to accrue. Disconnecting or putting the VM to sleep from an RDP session also does not deallocate resources and will not save on costs.

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References:

Microsoft Azure Documentation, "Virtual machine states and billing status." This document explicitly states, "The virtual machine is deallocated. In this state, it doesn't incur charges for the compute resources... The Stopped (deallocated) state is the only state that doesn't incur compute charges." It also clarifies that shutting down the OS from within the VM results in a "Stopped" state where compute charges continue.

Microsoft Azure Documentation, "Start or stop a VM." In the "Stop a VM" section, the documentation notes: "When you stop a VM with the button in the portal, from PowerShell, or the CLI, the status of the VM is updated to Stopped (deallocated). Stopping the virtual machine from within the VM's guest operating system does not deallocate its compute resources and you will continue to be billed for them."

Question: 399

HOTSPOT 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
Azure PowerShell modules can be installed on macOS.	<input checked="" type="radio"/>	<input type="radio"/>
Azure Cloud Shell can be accessed from a web browser on a Linux computer.	<input type="radio"/>	<input checked="" type="radio"/>
The Azure portal can only be accessed from a Windows device.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

Yes

Yes

No

Explanation:

Azure PowerShell on macOS: The Azure PowerShell Az module is cross-platform. It can be installed and run on Windows, Linux, and macOS, as it is built on PowerShell 7.x, which is itself a cross-platform framework.

Azure Cloud Shell Access: Azure Cloud Shell is an interactive, browser-accessible shell for managing Azure resources. As it is a web-based tool, it can be accessed from any modern web browser on any operating system that supports one, including Linux, macOS, and Windows.

Azure Portal Access: The Azure portal is a web-based, unified console. Its accessibility is dependent on the web browser, not the underlying operating system. It can be accessed from any device with a supported web browser, making it accessible on Windows, macOS, Linux, and mobile devices.

References:

- Microsoft. (2024). Install the Azure Az PowerShell module. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/powershell/azure/install-az-ps>. (This document provides specific installation instructions for Windows, Linux, and macOS platforms).
- Microsoft. (2023). Overview of Azure Cloud Shell. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/cloud-shell/overview>. (This document states, "Cloud Shell is a flexible tool that can be used from... a browser at <https://shell.azure.com>").

Microsoft. (2024). Azure portal overview. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-portal/azure-portal-overview>. (This document describes the portal as a "web-based, unified console" and specifies supported browsers, none of which are exclusive to Windows).

Question: 400

What is an example of vertical scaling in a cloud environment?

- A. additional CPU to an existing Azure virtual machine
- B. adding an additional Azure App Service instance automatically
- C. adding an additional Azure virtual machine
- D. adding an additional Azure Virtual Desktop session host

Answer:

A

Explanation:

Vertical scaling, also known as "scaling up," involves increasing the capacity of an existing resource. Adding more CPU to an existing Azure virtual machine is a direct example of this, as it enhances the computational power of that single instance without adding new instances. This approach is used when a single machine needs more power to handle its workload. In contrast, horizontal scaling adds more instances of a resource to distribute the load.

Why Incorrect Options are Wrong:

- CertMage.com
- B. Adding an additional Azure App Service instance is an example of horizontal scaling ("scaling out"), as it adds more machines to a resource pool.
 - C. Adding an additional Azure virtual machine to a workload is a classic example of horizontal scaling ("scaling out").
 - D. Adding an additional Azure Virtual Desktop session host is a form of horizontal scaling ("scaling out") to support more user sessions.

References:

1. Microsoft Learn. (2024). Describe scalability. In "Describe cloud concepts" (AZ-900 learning path). "Vertical scaling (scaling up): To scale vertically, you increase the resources of a single virtual machine (for example, you add more CPUs or memory)." and "Horizontal scaling (scaling out): To scale horizontally, you add more virtual machines to handle the demand."
2. Microsoft Learn. (2024). Describe the benefits of using cloud services. In "Microsoft Azure Fundamentals: Describe cloud concepts" (AZ-900 learning path). Section: "Describe scalability". "Vertical scaling, also known as scaling up, is the process of adding resources to increase the power of an existing server. Some examples of vertical scaling are adding more CPUs or memory to a virtual machine."

Question: 401

What enables a cloud service to adapt quickly to changing requirements?

- A. high availability
- B. agility
- C. manageability
- D. predictability

Answer:

B

Explanation:

Agility is a core benefit of cloud computing that describes the ability to react quickly to changing demands. It allows organizations to rapidly provision and de-provision resources, enabling them to develop, test, and launch applications much faster than with traditional on-premises infrastructure. This speed allows businesses to adapt swiftly to market changes, customer needs, and new opportunities, directly addressing the ability to adapt to changing requirements.

Why Incorrect Options are Wrong:

- CertMage.com
- A. high availability: This refers to a service's ability to remain operational and accessible with minimal downtime, which is about reliability, not speed of adaptation.
 - C. manageability: This describes the ease of managing and monitoring cloud resources through dashboards and APIs, which simplifies administration but is not the primary term for rapid adaptation.
 - D. predictability: This relates to the ability to forecast costs and performance. It ensures consistency but does not describe the capacity to respond quickly to new demands.

References:

1. Microsoft Learn. (2024). Describe the benefits of using cloud services. In "AZ-900: Describe cloud concepts" module. "Agility is the ability to react quickly. The cloud lets you allocate and deallocate resources quickly."
2. Microsoft Learn. (2024). What is cloud computing?. In "Describe cloud computing" learning path. Under the "Benefits of cloud computing" section, it states, "Agility: Deploy and configure cloud-based resources quickly as your app requirements change."

Question: 402

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Authentication
Authorization
Authentication
Federation
Ticketing

is the process of verifying a user's credentials.

Answer:

Authentication

Explanation:

Authentication is the security process that confirms a user's identity. It answers the question, "Who are you?" This verification is typically achieved by validating one or more pieces of evidence, or credentials, such as a password, a security token, or a biometric scan. In contrast, authorization occurs after successful authentication and determines what resources an authenticated user is permitted to access. Federation is a trust relationship between different domains to share identity information, while ticketing (as in Kerberos) is a mechanism that uses tokens to grant access to resources for an already authenticated user.

References:

Gollmann, D. (2011). Computer Security (3rd ed.). John Wiley & Sons.

Location: Chapter 12, "Authentication," Section 12.1, page 273.

Quote: "Authentication is the binding of an identity to a subject... The subject has to present its credentials so that the authenticator can verify the claimed identity."

Anderson, R. J. (2008). Security Engineering: A Guide to Building Dependable Distributed Systems (2nd ed.). Wiley Publishing, Inc.

Location: Chapter 2, "Protocols," Section 2.2, "Authentication and Key Distribution," page 31.

Quote: "Authentication protocols are challenges designed to establish that a principal is who he claims to be."

Kaufman, C., Perlman, R., & Speciner, M. (2002). Network Security: Private Communication in a Public World (2nd ed.). Prentice Hall.

Location: Chapter 13, "Authentication Systems," Section 13.1, "Password-Based Authentication," page 295.

Quote: "Authentication is the process of proving you are who you say you are. Usually this is done through presentation of credentials..."

Question: 403

What additional resource is required by an Azure virtual machine?

- A. Azure Firewall
- B. a virtual network
- C. a public IP address
- D. a service endpoint

Answer:

B

Explanation:

An Azure Virtual Machine (VM) requires a network interface (NIC) to enable communication. Every NIC created in Azure must be associated with a subnet within an Azure Virtual Network (VNet). The VNet provides the fundamental private networking environment, including an IP address space, allowing the VM to communicate with other resources in Azure, on-premises networks, or the internet. Therefore, a virtual network is a mandatory prerequisite for provisioning any Azure VM, as the VM cannot exist without a network connection.

Why Incorrect Options are Wrong:

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- A. Azure Firewall: This is an optional, managed network security service used to protect VNet resources; it is not a requirement for creating a VM.
- C. a public IP address: This is an optional resource assigned to a VM's network interface to allow direct inbound communication from the internet.
- D. a service endpoint: This is an optional VNet feature that secures connectivity to specific Azure PaaS services, not a direct requirement for the VM itself.

References:

1. Microsoft Learn. "What is Azure Virtual Network?". Azure Documentation. Under the "Azure VNet basics" section, it states, "Azure VNet enables many types of Azure resources, such as Azure Virtual Machines (VM), to securely communicate with each other..." This establishes the foundational role of VNets for VMs.
2. Microsoft Learn. "Create a virtual network - tutorial". Azure Documentation. In the "Prerequisites" section for creating a VM, the first step listed is often to create a virtual network, highlighting it as a foundational requirement before the VM itself can be created.
3. Microsoft Learn. "Network security for virtual machines in Azure". Azure Documentation. This document discusses network interfaces, stating, "An Azure virtual machine (VM) needs a network interface (NIC) to communicate with the internet, Azure, and on-premises resources. A NIC must be created in an Azure Virtual Network." This directly confirms the dependency chain: VM

requires a NIC, and a NIC requires a VNet.

Question: 404

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

You plan to deploy 20 virtual machines to an Azure environment. To ensure that a virtual machine named VM1 cannot connect to the other virtual machines, VM1 must

- be deployed to a separate virtual network.
- be deployed to a separate virtual network.
- run a different operating system than the other virtual machines.
- be deployed to a separate resource group.
- have two network interfaces.

Answer:

be deployed to a separate virtual network.

Explanation:

To ensure network isolation for a virtual machine (VM), it must be placed in a separate Azure Virtual Network (VNet). A VNet is a fundamental boundary that isolates Azure resources from one another. By default, VMs in different VNets cannot communicate. A resource group is a logical container for management and billing and does not provide network isolation. Similarly, the operating system and the number of network interfaces on a VM do not inherently prevent network traffic between VMs located on the same virtual network.

References:

Microsoft Azure Documentation, "What is Azure Virtual Network?": This official document explicitly states that one of the key capabilities of a VNet is isolation. It clarifies, "Virtual networks are isolated from one another. You can create separate virtual networks for development, testing, and production that use the same CIDR address blocks."

Microsoft Azure Documentation, "Virtual network traffic routing": This resource details how Azure routes traffic. It confirms that VMs in different VNets cannot communicate by default. "Virtual machines that you deploy into different virtual networks can't communicate with each other unless you choose to connect the virtual networks, such as with virtual network peering." This directly supports the answer that separating a VM into its own VNet will prevent connectivity.

Question: 405

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

Statements	Yes	No
Azure resources can only access other resources in the same resource group.	<input type="radio"/>	<input checked="" type="radio"/>
If you delete a resource group, all the resources in the resource group will be deleted.	<input checked="" type="radio"/>	<input type="radio"/>
A resource group can contain resources from multiple Azure regions.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

Yes

Yes

Explanation:

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Statement 1: Azure resources can access resources in different resource groups, provided the correct permissions are granted. A resource group is a logical container for resources, not a security or access boundary. Access control is managed using Azure Role-Based Access Control (RBAC) at various scopes, including the subscription, management group, or individual resource level, which allows for cross-resource group access.

Statement 2: Deleting an Azure resource group is an irreversible action that deletes all resources contained within it. The deletion process cascades, removing all associated resources, regardless of their type.

Statement 3: A single resource group can contain resources from different Azure regions. While it's a best practice for organizational and management purposes to group resources by region, it is not a technical requirement. A resource group serves as a logical collection for resources, but its location is only for metadata and not a constraint on the location of the resources it contains.

References:

Microsoft Learn: "What is an Azure resource group?". Microsoft Corporation. Section: "Resource groups and regions". Available at: <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/manage-resource-groups-portal>.

Microsoft Learn: "Delete Azure resource group". Microsoft Corporation. Section: "Delete a

resource group". Available at: <https://learn.microsoft.com/en-us/azure/azure-resource-manager/resource-group-create-portal>

Microsoft Learn: "Azure resource group overview". Microsoft Corporation. Section: "Resource group is a logical container". Available at:

<https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/overview>.

Question: 406

HOTSPOT 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
		A single Microsoft account can be used to manage multiple Azure subscriptions.	<input checked="" type="radio"/>	<input type="radio"/>
		Two Azure subscriptions can be merged into a single subscription.	<input type="radio"/>	<input checked="" type="radio"/>
		A company can use resources from multiple subscriptions.	<input checked="" type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

CertMage.com
A single Microsoft account can be used to manage multiple Azure subscriptions: This statement is correct. An Azure account, which is linked to an identity (like a Microsoft account or an organizational identity in Azure AD), serves as a billing and management entity. This single account can hold and manage multiple subscriptions, which are used to provision resources. This structure allows organizations to segregate environments (e.g., development, production) or departments for billing and governance purposes under one overarching account. Management groups can then be used to apply policies and access controls across these multiple subscriptions efficiently.

Two Azure subscriptions can be merged into a single subscription: This statement is incorrect. Azure does not provide a feature to directly "merge" two subscriptions into one. Subscriptions are distinct billing and management boundaries. While you can move most Azure resources from one subscription to another, the subscriptions themselves cannot be consolidated. The standard procedure to achieve a similar outcome is to move all resources from the source subscription to the destination subscription and then cancel the now-empty source subscription.

A company can use resources from multiple subscriptions: This statement is correct. It is a common and recommended practice for companies to use multiple subscriptions to organize their Azure environment. This approach helps in separating billing, setting different access control policies, and managing resource quotas for various departments, projects, or environments (e.g.,

production vs. development). Services like Azure Virtual Network peering and ExpressRoute circuits can be configured to allow resources across different subscriptions to communicate securely and efficiently.

References:

Microsoft Learn. Organize your resources with Azure management groups. This document explicitly states, "If your organization has many subscriptions, you may need a way to efficiently manage access, policies, and compliance for those subscriptions. Azure management groups provide a level of scope above subscriptions." This confirms that multiple subscriptions are a standard scenario managed under a single hierarchy.

Microsoft Learn. Subscriptions, licenses, accounts, and tenants for Microsoft's cloud offerings. In the section "Subscriptions," it clarifies the relationship: "An organization can have multiple subscriptions... In Azure, each subscription is associated with a single Azure Active Directory (Azure AD) tenant." This shows that multiple subscriptions can exist within an organization's structure.

Microsoft Learn. Move resources to a new resource group or subscription. The existence of this detailed documentation on how to move resources between subscriptions implicitly confirms that a direct "merge" function is not available. The process described is a resource migration, not a subscription consolidation.

Microsoft Azure. Azure subscription and service limits, quotas, and constraints. This reference details various limits, many of which are defined on a per-subscription basis, reinforcing the concept that a single account or organization will often manage and operate across multiple subscriptions.

Question: 407

How many copies of data are maintained by an Azure Storage account that uses locally-redundant storage (LRS)?

- A. 3
- B. 4
- C. 6
- D. 9

Answer:

A

Explanation:

Locally-redundant storage (LRS) is an Azure Storage redundancy option that replicates your data three times within a single physical location (a data center) in the primary region. The copies are made synchronously and exist in separate fault domains and upgrade domains within that single data center. This configuration protects data from hardware failures, such as a bad disk drive or server rack failure. LRS is the most cost-effective redundancy option but is not recommended for applications requiring high availability, as a disaster affecting the entire data center could lead to data loss.

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Why Incorrect Options are Wrong:

- B. 4: This is not a standard number of data copies for any Azure Storage redundancy option.
- C. 6: This is the number of data copies maintained by Geo-Redundant Storage (GRS) and Geo-Zone-Redundant Storage (GZRS).
- D. 9: This is not a standard number of data copies for any Azure Storage redundancy option.

References:

1. Microsoft Learn. (2024). Azure Storage redundancy. Retrieved from <https://learn.microsoft.com/en-us/azure/storage/common/storage-redundancy>. In the "Redundancy in the primary region" section, under "Locally-redundant storage," the first sentence states, "Locally-redundant storage (LRS) copies your data synchronously three times within a single physical location in the primary region."
2. Microsoft Learn. (2024). AZ-900: Describe Azure storage services. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-storage-services/3-compare-storage-services>. In the "Storage redundancy" section, the table clearly lists "Locally-redundant storage (LRS)" with "Three copies of your data in one datacenter."

Question: 408

HOTSPOT 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
		You can create Group Policies in Azure AD.	<input type="radio"/>	<input checked="" type="radio"/>
		You can join Windows 10 devices to Azure AD.	<input checked="" type="radio"/>	<input type="radio"/>
		You can join Android devices to Azure AD.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

Yes

No

Explanation:

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You can create Group Policies in Azure AD. (No) Group Policy Objects (GPOs) are a feature exclusive to on-premises Windows Server Active Directory Domain Services (AD DS). Azure Active Directory does not support GPOs. Instead, for cloud-based policy and device management, Azure AD integrates with Mobile Device Management (MDM) solutions like Microsoft Intune. Intune uses configuration profiles and policies to manage settings on various devices, serving a similar function to GPOs but through a modern, cloud-native framework.

You can join Windows 10 devices to Azure AD. (Yes) Azure AD Join is a core feature that allows Windows 10 and Windows 11 devices to be joined directly to an Azure AD tenant. This is designed for organizations that are cloud-first or cloud-only. An Azure AD-joined device allows users to sign in to the device using their Azure AD credentials and enables single sign-on (SSO) to cloud resources like Microsoft 365. This process provides centralized management through the cloud.

You can join Android devices to Azure AD. (No) The term "join" is specific to the process for Windows devices. Mobile operating systems like Android and iOS cannot be "Azure AD joined." Instead, they can be "Azure AD registered." This registration process, typically managed via Microsoft Intune enrollment, allows the device to be recognized by Azure AD and enables access to company resources while applying specific organizational policies for security and compliance.

References:

Azure AD vs. Group Policy:

Microsoft. (2023). Compare Active Directory to Azure Active Directory. Microsoft Docs. In the "Management" section, it explicitly states that Azure AD's management model is via MDM (like Intune) and does not use Group Policy.

Azure AD Join for Windows Devices:

Microsoft. (2023). Azure AD joined devices. Microsoft Docs. This document details the process and benefits, stating, "Azure AD join allows you to join devices directly to Azure AD without the need to join to on-premises Active Directory."

Azure AD Registration for Mobile Devices:

Microsoft. (2023). Azure AD registered devices. Microsoft Docs. This source explains, "Azure AD registration enables you to manage your device's identity... It is available for Windows 10, iOS, Android, and macOS." It consistently uses the term "register" for these devices, distinguishing it from "join."

Microsoft. (2024). Enroll Android devices. Microsoft Intune Documentation. This documentation outlines the "enrollment" process for Android, which is the mechanism for registering the device with Azure AD for management purposes.

Question: 409

HOTSPOT 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
		Microsoft Defender for Cloud can monitor Azure resources and on-premises resources.	<input type="radio"/>	<input checked="" type="radio"/>
		All Microsoft Defender for Cloud features are free.	<input checked="" type="radio"/>	<input type="radio"/>
		From Microsoft Defender for Cloud, you can download a Regulatory Compliance report.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

Yes

No

Yes

Explanation:

Microsoft Defender for Cloud is designed as a hybrid and multi-cloud security solution. It natively protects Azure resources and can extend its protection and monitoring capabilities to on-premises servers and virtual machines by using Azure Arc-enabled servers. This allows for a unified security management view across different environments.

Microsoft Defender for Cloud has two main offerings: Foundational Cloud Security Posture Management (CSPM), which is free, and optional enhanced security features through paid Microsoft Defender plans. These paid plans provide advanced threat protection for specific workloads like servers, storage, SQL, and containers. Therefore, not all features are free.

A core feature of Microsoft Defender for Cloud is its regulatory compliance dashboard. This dashboard continuously assesses the hybrid cloud environment against controls from various industry standards and regulations. Users can generate and download PDF reports from this dashboard to provide evidence of compliance to auditors and stakeholders.

References:

Microsoft Documentation. (n.d.). What is Microsoft Defender for Cloud?. Microsoft Learn.

Retrieved from

<https://learn.microsoft.com/en-us/azure/defender-for-cloud/defender-for-cloud-introduction>.

This document states, "To extend security to on-premises machines, deploy Azure Arc and enable

Defender for Cloud's enhanced security features." This confirms its capability to monitor on-premises resources.

Microsoft Documentation. (n.d.). Overview of Microsoft Defender for Cloud. Microsoft Learn.

Retrieved from <https://learn.microsoft.com/en-us/azure/defender-for-cloud/overview>.

Under the "Defender for Cloud plans" section, it distinguishes between the "free" Foundational CSPM and the various paid Defender plans, confirming the pricing model.

Microsoft Documentation. (n.d.). Tutorial: Regulatory compliance checks. Microsoft Learn.

Retrieved from

<https://learn.microsoft.com/en-us/azure/defender-for-cloud/regulatory-compliance-dashboard>.

In the section "Generate compliance status reports and certificates," the documentation explicitly states, "You can download PDF reports summarizing your compliance status for a particular standard."

Question: 410

DRAG DROP Match the Azure storage services to the appropriate descriptions. To answer, drag the appropriate storage service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Storage service	Answer Area
Azure Blob storage	Used for reliable messaging between applications
Azure Disk Storage	Can be accessed as a network share from a Windows device
Azure Files	Can be configured to use the Archive access tier
Azure Queue Storage	

Answer:

Used for reliable messaging between applications: Azure Queue Storage

Can be accessed as a network share from a Windows device: Azure Files

Can be configured to use the Archive access tier: Azure Blob storage

Explanation:

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Azure Queue Storage is specifically designed to store large numbers of messages that can be securely accessed from anywhere in the world. It facilitates asynchronous communication between application components, whether they are running in the cloud, on-premises, or on mobile devices, making it the correct choice for reliable messaging.

Azure Files provides fully managed cloud file shares that are accessible via the industry-standard Server Message Block (SMB) protocol. This allows you to mount the file share just like a traditional network share on a Windows device, making it seamlessly accessible through File Explorer.

Azure Blob storage is an object storage solution for the cloud, optimized for storing massive amounts of unstructured data. It features access tiers-Hot, Cool, and Archive-to help manage storage costs. The Archive tier is a low-cost, offline tier for storing data that is rarely accessed and has flexible latency requirements.

References:

Microsoft Learn. (2024). Introduction to Azure Queue Storage. "Azure Queue Storage is a service for storing large numbers of messages. You access messages from anywhere in the world via authenticated calls using HTTP or HTTPS... You can use Queue Storage to create a backlog of

work to process asynchronously."

Microsoft Learn. (2024). What is Azure Files?. "Azure Files offers fully managed file shares in the cloud that are accessible via the industry standard Server Message Block (SMB) protocol, Network File System (NFS) protocol, and Azure Files REST API. Azure file shares can be mounted concurrently by cloud or on-premises deployments of Windows, Linux, and macOS."

Microsoft Learn. (2023). Access tiers for blob data. "Azure Storage offers different access tiers... The access tiers include: ... Archive tier - An offline tier optimized for storing data that is rarely accessed, and that has flexible latency requirements, on the order of hours."

Question: 411

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

Answer Area		Yes	No
Statements			
You can assign an Azure policy to a virtual machine.	<input type="radio"/>	<input checked="" type="radio"/>	
If an Azure policy is assigned to a resource group, noncompliant resources are removed from the group.	<input type="radio"/>	<input checked="" type="radio"/>	
If an Azure policy is assigned to a resource group, only compliant resources can be deployed to the group.	<input type="radio"/>	<input checked="" type="radio"/>	

Answer:

You can assign an Azure policy to a virtual machine: Yes

If an Azure policy is assigned to a resource group, noncompliant resources are removed from the group: No

If an Azure policy is assigned to a resource group, only compliant resources can be deployed to the group: Yes

CertMage.com

Explanation:

Assigning Policy to a VM: Azure Policy assignments can be scoped to different levels, including management groups, subscriptions, resource groups, and individual resources. A virtual machine is a type of resource, making it a valid scope for a policy assignment.

Effect on Noncompliant Resources: Azure Policy identifies and reports on noncompliant resources. It does not automatically remove or delete existing noncompliant resources.

Remediation tasks can be used to modify existing resources to bring them into compliance, but deletion is not a standard built-in effect.

Deployment of Compliant Resources: When an Azure Policy with a Deny effect is assigned to a scope (like a resource group), it prevents the creation or modification of resources that do not adhere to the policy's rules. Therefore, only compliant resources can be successfully deployed into that group.

References:

Microsoft Azure Documentation: Understand scope in Azure Policy.

Reference: Under the "Scope" section, it explicitly lists the levels at which policies can be applied: "Azure Policy allows you to assign policies and initiatives at four different scopes: management groups, subscriptions, resource groups, and individual resources." This confirms the first statement.

Microsoft Azure Documentation: Understand Azure Policy effects.

Reference: This document details the available policy effects like Deny, Audit, Append, Modify, etc. None of these effects involve the automatic removal of existing resources. The Deny effect specifically "prevents a resource request that doesn't match the policy definition," which supports the third statement. The absence of a "remove" or "delete" effect for existing noncompliant resources confirms the second statement is false.

Microsoft Azure Documentation: Remediate non-compliant resources with Azure Policy.

Reference: The "How remediation works" section explains that remediation tasks are used to bring existing resources into compliance using deployIfNotExists or modify effects. It focuses on alteration or addition, not deletion of the primary non-compliant resource.

Question: 412

You have an Azure subscription and 100 Windows 10 devices. You need to ensure that only users whose devices have the latest security patches installed can access Azure AD-integrated applications. What should you implement?

- A. Azure Bastion
- B. a conditional access policy
- C. Azure Policy
- D. Azure Firewall

Answer:

B

Explanation:

Azure AD Conditional Access policies are the appropriate tool for enforcing organizational access rules for applications. These policies function as "if-then" statements, evaluating signals such as user, location, and device state to make access decisions. To meet the requirement, an administrator would create a Conditional Access policy that targets the specific Azure AD-integrated applications. The policy's access control would be set to "Require device to be marked as compliant." Device compliance rules, which can include requirements for OS patch levels, are typically defined in a mobile device management (MDM) solution like Microsoft Intune, which integrates directly with Azure AD and Conditional Access.

Why Incorrect Options are Wrong:

- A. Azure Bastion: This service provides secure RDP and SSH connectivity to virtual machines directly from the Azure portal, not for controlling application access based on device compliance.
- C. Azure Policy: This service enforces governance rules and standards for Azure resources (e.g., virtual machines, storage accounts), not for controlling user access to applications.
- D. Azure Firewall: This is a network security service that protects Azure Virtual Network resources from traffic-based threats; it does not evaluate client device health for application access.

References:

1. Microsoft Learn, Azure Active Directory Documentation. "What is Conditional Access in Azure Active Directory?". This document states, "Conditional Access policies are if-then statements, if a user wants to access a resource, then they must complete an action... Signals such as... device compliance... are used."

Reference: Microsoft. (2023). What is Conditional Access in Azure Active Directory? Microsoft Learn. Retrieved from

<https://learn.microsoft.com/en-us/azure/active-directory/conditional-access/overview>, Section:

"Common signals".

2. Microsoft Learn, Azure Active Directory Documentation. "Conditional Access: Grant". This document details the access controls available in a policy, including the option to "Require device to be marked as compliant," which directly addresses the question's scenario.

Reference: Microsoft. (2023). Conditional Access: Grant. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/active-directory/conditional-access/concept-conditional-access-grant>, Section: "Require device to be marked as compliant".

3. Microsoft Learn, AZ-900 Courseware. "Describe identity, governance, privacy, and compliance features". This module explains the distinct functions of Azure AD for identity and access versus Azure Policy for resource governance.

Reference: Microsoft. (2023). Describe Azure identity and access. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-identity-governance-privacy-compliance-features/3-describe-azure-identity-access>, Section: "Describe Conditional Access".

Question: 413

You have on-premises servers that run Windows Server. What should you implement to manage the servers by using the Azure portal?

- A. Azure Kubernetes Service (AKS)
- B. Azure Arc
- C. Docker
- D. role-based access control (RBAC)

Answer:

B

Explanation:

Azure Arc is the service designed to extend Azure management and services to any infrastructure, including on-premises servers. By installing the Azure Connected Machine agent on on-premises Windows Servers, these servers are projected as resources within Azure Resource Manager. This allows you to manage, govern, and secure them directly from the Azure portal using familiar Azure services like Azure Policy, Azure Monitor, and Microsoft Defender for Cloud. Azure Arc provides a single, unified control plane for both Azure-native and on-premises resources, directly fulfilling the requirement of the question.

Why Incorrect Options are Wrong:

- A. Azure Kubernetes Service (AKS) is a managed container orchestration service for deploying and scaling containerized applications, not for general management of on-premises servers.
- C. Docker is an open-source platform for developing, shipping, and running applications in containers. It is a technology, not an Azure service for managing servers.
- D. Role-based access control (RBAC) is an authorization system used to manage access to Azure resources. It does not enable the connection or management of on-premises servers.

References:

1. Microsoft Learn. (2024). What is Azure Arc? "Azure Arc simplifies governance and management by delivering a consistent multicloud and on-premises management platform." Retrieved from <https://learn.microsoft.com/en-us/azure/azure-arc/overview>
2. Microsoft Learn. (2024). Azure Arc-enabled servers overview. "Azure Arc-enabled servers lets you manage Windows and Linux physical servers and virtual machines hosted outside of Azure, on your corporate network, or other cloud provider." Section: "What does Azure Arc-enabled servers provide?". Retrieved from <https://learn.microsoft.com/en-us/azure/azure-arc/servers/overview>
3. Microsoft Learn. (2024). AZ-900: Describe Azure management and governance. "Azure Arc is

a set of technologies that helps you manage your cloud environment... You can manage your entire environment, with a single pane of glass, by projecting your existing non-Azure and/or on-premises resources into Azure Resource Manager." Section: "Describe the purpose of Azure Arc". Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-azure-management-governance/4-describe-purpose-of-azure-arc>

4. Microsoft Learn. (2024). What is Azure role-based access control (Azure RBAC)? "Azure role-based access control (Azure RBAC) is an authorization system you use to manage access to Azure resources." Section: "What is Azure RBAC?". Retrieved from <https://learn.microsoft.com/en-us/azure/role-based-access-control/overview>

Question: 414

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

If Windows Server or Microsoft SQL Server licenses are covered by  , you can repurpose the licenses on Azure virtual machines.

Software Assurance
an End User License Agreement (EULA)
Microsoft Lifecycle Policy
Software Assurance

Answer:

Software Assurance

Explanation:

Software Assurance is the correct answer. This Microsoft program provides a range of benefits for volume licensing customers, including the Azure Hybrid Benefit. The Azure Hybrid Benefit specifically allows customers to use their existing on-premises Windows Server and SQL Server licenses, which have active Software Assurance, on Azure Virtual Machines. This significantly reduces the cost of running these workloads in the cloud by eliminating the software licensing costs from the VM price.

An End User License Agreement (EULA) is a general contract governing software use and does not inherently grant cloud repurposing rights. The Microsoft Lifecycle Policy dictates the support timeline for a product, not its licensing portability.

References:

Microsoft Azure Documentation, "Azure Hybrid Benefit - frequently asked questions (FAQ)".

Retrieved from Microsoft Learn.

Reference Point: The "What is Azure Hybrid Benefit?" section explicitly states, "It works by letting you use your on-premises Software Assurance-enabled Windows Server and SQL Server licenses on Azure."

Microsoft Licensing Documentation, "Software Assurance Benefits". Retrieved from Microsoft Volume Licensing.

Reference Point: The benefits chart and descriptions for Software Assurance list "Azure Hybrid Benefit" as a key entitlement for Windows Server and SQL Server, allowing customers to "leverage existing on-premises Windows Server and/or SQL Server license investments for virtual machines in Azure."

Question: 415

You plan to deploy a service to Azure virtual machines. You need to ensure that the service will be available if a datacenter fails. What should you use as part of the virtual machine deployment?

- A. availability sets
- B. proximity placement groups
- C. host groups
- D. availability zones

Answer:

D

Explanation:

Availability Zones are physically separate datacenters within an Azure region, each with independent power, cooling, and networking. Deploying virtual machines across multiple Availability Zones ensures that if one entire datacenter fails, the service remains operational in the other zones. This design provides the highest level of availability offered by Azure to protect applications and data from datacenter-level failures, directly addressing the requirement.

Why Incorrect Options are Wrong:

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- A. availability sets: Protects against hardware failures within a single datacenter (e.g., rack or server failure), not the failure of the entire datacenter.
- B. proximity placement groups: Used to co-locate Azure resources for low network latency, which is a performance feature, not a high-availability mechanism for datacenter failure.
- C. host groups: A logical grouping for Azure Dedicated Hosts. While they can be deployed across zones, the host group itself is not the resiliency feature.

References:

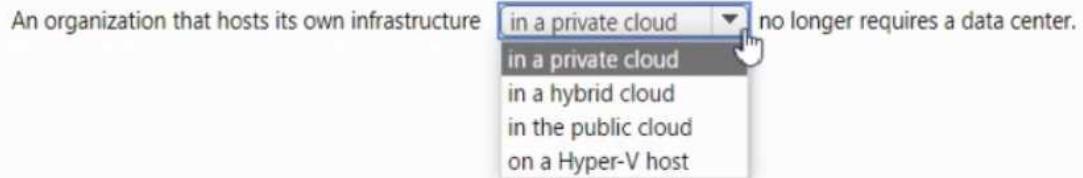
1. Microsoft Learn. (2024). Regions and Availability Zones in Azure. "What are Availability Zones?" section. "Availability Zones are unique physical locations within an Azure region. Each zone is made up of one or more datacenters equipped with independent power, cooling, and networking."
2. Microsoft Learn. (2024). Availability options for virtual machines. "Availability zones" section. "To protect your applications from datacenter-level failures, you can deploy your VMs across multiple availability zones... If one zone is compromised, then applications and data are still available in the other zones."
3. Microsoft Learn. (2024). Availability sets overview. "How do availability sets work?" section. "Placing your VMs in an availability set protects your application from localized hardware failures, such as the top-of-rack switch or a server rack power failure."

4. Microsoft Learn. (2024). Proximity placement groups. "Proximity placement groups" section. "A proximity placement group is a logical grouping used to make sure that Azure compute resources are physically located close to each other."

Question: 416

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

in the public cloud

Explanation:

An organization that moves its entire infrastructure to the public cloud offloads the responsibility of owning, managing, and maintaining the physical hardware and data center facilities to a third-party cloud provider (like Microsoft Azure, AWS, or Google Cloud). The provider owns and operates the data centers. In contrast, a private cloud is often hosted on-premises in an organization's own data center. A hybrid cloud involves a mix, usually including a private on-premises component. A Hyper-V host is a virtualization server that would reside within a data center, not replace it. Therefore, only a full migration to the public cloud eliminates the need for an organization to have its own data center.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

Section: Deployment Models, Page 3: Defines a Public Cloud as infrastructure provisioned for open use by the general public. It clarifies, "It exists on the premises of the cloud provider." This explicitly states that the physical location (the data center) is managed by the provider, not the customer.

Section: Deployment Models, Page 3: Defines a Private Cloud as infrastructure provisioned for exclusive use by a single organization. It states, "...it may exist on or off premises." Because it can exist on-premises, this model does not guarantee the elimination of a data center.

Microsoft Azure Documentation. (n.d.). What is a public cloud?

Overview Section: "With a public cloud, all hardware, software, and other supporting infrastructure is owned and managed by the cloud provider... In a public cloud, you don't have to buy, own, and maintain any of the underlying infrastructure-the public cloud provider does it for you." This confirms that the organization is no longer responsible for the data center infrastructure.

Armbrust, M., Fox, A., Griffith, R., et al. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58.

DOI: <https://doi.org/10.1145/1721654.1721672>

Section 2: Defining Cloud Computing, Paragraph 2: The paper describes public cloud computing as a model where a user can "pay a provider for services" without the need to "deploy their own infrastructure." This contrasts with owning a private data center, which incurs significant capital and operational expenses that are obviated by using a public cloud.

Question: 417

DRAG DROP Match the cloud computing benefits to the appropriate requirements. To answer, drag the appropriate benefit from the column on the left to its requirement on the right. Each benefit may be used once more than once, or not at all. NOTE: Each correct match is worth one point.

Benefits	Answer Area
Disaster recovery	<input type="text"/> Provide a continuous user experience in the event of a resource failure.
Geo-distribution	<input type="text"/> Deploy apps and data to regional data centers that are located close to users.
High availability	<input type="text"/>
Scalability	<input type="text"/> Compute capacity can be increased dynamically by adding RAM or CPU to a virtual machine.

Answer:

High availability: Provide a continuous user experience in the event of a resource failure.

Geo-distribution: Deploy apps and data to regional data centers that are located close to users.

Scalability: Compute capacity can be increased dynamically by adding RAM or CPU to a virtual machine.

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Explanation:

High availability refers to a system's ability to remain operational and accessible without interruption, even when one or more of its components fail. It ensures a continuous user experience by implementing redundancy.

Geo-distribution is the strategy of deploying applications and data across multiple geographic locations. This practice brings services closer to users, which reduces latency and improves responsiveness.

Scalability is the capability to adjust compute resources to meet changing demands. The example of dynamically adding CPU or RAM to a virtual machine is a form of "vertical scaling" or "scaling up."

References:

Microsoft Azure Documentation, "Pillars of the Microsoft Azure Well-Architected Framework - Reliability," [Learn.microsoft.com](https://learn.microsoft.com). This document defines high availability as a system's capability to continue functioning when components fail. It distinguishes this from disaster recovery, which handles the failure of an entire region.

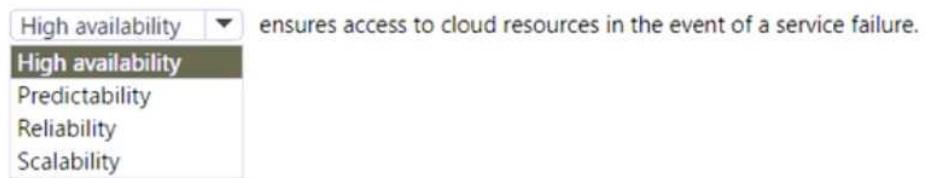
Microsoft Azure Documentation, "What is scalability?", [Learn.microsoft.com](https://learn.microsoft.com). This article explains

scalability as the ability to handle increased load. It explicitly describes vertical scaling (scaling up) as increasing the capacity of a resource, such as by adding more CPU or memory. Armbrust, M., et al. (2010). "A View of Cloud Computing." Communications of the ACM, 53(4), pp. 50-58. This seminal academic paper discusses the core concepts of cloud computing. On page 52, it describes elasticity/scalability as the ability for a user to acquire compute resources "at any time" and "in any quantity," which aligns with dynamically increasing a VM's capacity. It also discusses the use of geographically distributed datacenters to minimize latency and provide fault tolerance. (DOI: <https://doi.org/10.1145/1721654.1721672>)

Question: 418

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

High availability

Explanation:

High availability is the correct term that describes a system's ability to remain operational and accessible even when a failure occurs. This is achieved through design principles like redundancy and automatic failover, which ensure that if one component fails, another immediately takes its place with minimal or no disruption to the user. This directly addresses the scenario of ensuring access to resources "in the event of a service failure." While related, reliability is a broader concept referring to the probability a system will function correctly over time, and scalability refers to the ability to adjust resources to meet demand.

References:

Microsoft Azure Documentation. (n.d.). Describe high availability and scalability in the cloud.

AZ-900: Microsoft Azure Fundamentals. Microsoft Learn. Retrieved from official Microsoft training materials.

Reference Details: In the section "What is high availability?", the documentation states: "A service is considered highly available if it can withstand a failure and continue to operate. High availability is about ensuring that your service is up and running for your customers."

Barroso, L. A., Clidaras, J., & Holzle, U. (2013). *The Datacenter as a Computer: An Introduction to the Design of Warehouse-Scale Machines* (2nd ed.). Morgan & Claypool Publishers.

Reference Details: Chapter 2 discusses how warehouse-scale systems are built from less reliable components and that achieving high availability for the overall service is a primary design goal, managed through massive redundancy and automated recovery.

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58.

Reference Details: Section 2.1, "Elasticity and the Illusion of Infinite Resources," discusses that a

key property of cloud computing is providing a service that is "always on." The paper states, "A cloud must pay attention to hardware failure, which is the norm rather than the exception... it must be managed in a way that the cloud provider's service is not interrupted." This management for uninterrupted service is the core of high availability.

DOI: <https://doi.org/10.1145/1721654.1721672>

Question: 419

At which OSI layer does ExpressRoute operate?

- A. Layer 5
- B. Layer 7
- C. Layer 3
- D. Layer 2

Answer:

C

Explanation:

Azure ExpressRoute's primary function is to create a private, routed connection between an on-premises network and Microsoft cloud services. This is accomplished using the Border Gateway Protocol (BGP), an industry-standard dynamic routing protocol, to exchange routes between the customer's network and Azure. Routing is a fundamental function of the OSI Network Layer (Layer 3). While the underlying circuit from a connectivity provider can be a Layer 2 or Layer 3 service, the essential operation of ExpressRoute to enable end-to-end connectivity and route exchange is a Layer 3 function. Microsoft explicitly states that Layer 2 network extensions are not supported over ExpressRoute, reinforcing its role as a Layer 3 service.

Why Incorrect Options are Wrong:

- A. Layer 5: This is the Session Layer, responsible for managing communication sessions. ExpressRoute is a network connectivity service, not a session management protocol.
- B. Layer 7: This is the Application Layer, which interacts with end-user applications like web browsers. ExpressRoute operates at a much lower, foundational level of the network stack.
- D. Layer 2: While some ExpressRoute connectivity models utilize a Layer 2 transport (e.g., point-to-point Ethernet), the service's core purpose is routing (Layer 3), and it does not function as a Layer 2 bridge.

References:

1. Microsoft Learn, "ExpressRoute routing requirements." This document specifies the mandatory use of BGP for route exchange.

Section: "BGP"

Quote: "Azure ExpressRoute uses BGP, an industry standard dynamic routing protocol, to exchange routes between your on-premises network, your instances in Azure, and Microsoft public addresses." BGP is a protocol whose function is at Layer 3.

2. Microsoft Learn, "ExpressRoute FAQ." This document clarifies that ExpressRoute does not provide Layer 2 extension capabilities, distinguishing its function from a pure Layer 2 service.

Section: "Connectivity and routing"

Quote: Under the question "Can I extend my datacenter VLANs to Azure by using ExpressRoute?", the answer is "No. We don't support layer 2 extensions into Azure."

3. Microsoft Learn, "ExpressRoute connectivity models." This document describes the underlying connection types, but the service's operational logic remains at Layer 3.

Section: "Any-to-any (IPVPN) connection"

Quote: "Integrates your WAN with Azure by providing Layer 3 connections." This explicitly confirms ExpressRoute operates as a Layer 3 service.

Question: 420

What is a feature of an Azure virtual network?

- A. resource cost analysis
- B. packet inspection
- C. isolation and segmentation
- D. geo-redundancy

Answer:

C

Explanation:

An Azure Virtual Network (VNet) provides a logically isolated section of the Azure cloud where you can launch Azure resources in a private network. A primary feature of a VNet is to enable isolation, ensuring that resources within one VNet cannot communicate with resources in another VNet by default. Furthermore, VNets can be divided into one or more subnets, which allows for network segmentation. This segmentation helps in organizing resources and applying specific security rules (using Network Security Groups) to control traffic flow between different parts of your network, enhancing security and management.

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Why Incorrect Options are Wrong:

- A. resource cost analysis: This is a function of Azure Cost Management and Billing, a separate service used to monitor, control, and optimize Azure spending.
- B. packet inspection: This is an advanced security feature provided by services like Azure Firewall or third-party Network Virtual Appliances (NVAs), not a native feature of a VNet itself.
- D. geo-redundancy: This is a high-availability and disaster recovery feature for data services like Azure Storage, not a characteristic of a VNet, which is a regional resource.

References:

1. Microsoft Learn. (2024). What is Azure Virtual Network? Under the "Communicate between Azure resources" section, it states, "You can segment a virtual network into one or more subnetworks and allocate a portion of the virtual network's address space to each subnet." and under "Key scenarios", it highlights "Securely communicate between Azure resources".
2. Microsoft Learn. (2023). Azure Virtual Network concepts and best practices. The "Security" section emphasizes, "Azure VNet provides an isolated and highly secure environment for your applications and resources."
3. Microsoft Learn. (2024). What is Azure Cost Management and Billing? This document describes the service for analyzing costs, which is distinct from VNet functionality.
4. Microsoft Learn. (2024). What is Azure Firewall? The overview describes features like "threat

intelligence-based filtering" and "IDPS," which involve packet inspection, identifying it as a feature of Azure Firewall, not the VNet.

Question: 421

DRAG DROP Match the cloud computing benefits to the appropriate descriptions. To answer, drag the appropriate benefit from the column on the left to its description on the right. Each benefit may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Benefits	Answer Area
Disaster recovery	<input type="text"/> Increase the compute capacity of apps in the cloud.
Geo-distribution	<input type="text"/> Provide a continuous user experience with no apparent downtime.
High availability	<input type="text"/>
Scalability	<input type="text"/> Ensure that users always have the best experience by deploying apps to all the regions where there are users.

Answer:

Scalability: Increase the compute capacity of apps in the cloud.

High availability: Provide a continuous user experience with no apparent downtime.

Geo-distribution: Ensure that users always have the best experience by deploying apps to all the regions where there are users.

Explanation:

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Scalability refers to the ability to adjust computing resources to handle changes in load. Increasing compute capacity, either by adding more resources (scaling out) or by using more powerful resources (scaling up), is a direct application of scalability.

High availability is a design principle focused on ensuring an agreed-upon level of operational performance for a system. It aims to eliminate single points of failure to ensure the service remains accessible and provides a continuous experience with minimal or no downtime.

Geo-distribution is the strategy of deploying applications and data across multiple geographic locations. This places services closer to end-users, which reduces latency and improves their experience, while also providing resilience against regional outages.

References:

Microsoft Azure Documentation, "Describe the benefits of using cloud services." Microsoft Learn. In the section "Describe high availability," it is defined as the ability to keep services running for extended periods with little to no downtime. The section "Describe scalability" defines it as the ability to increase or decrease resources for any given workload.

Microsoft Azure Documentation, "Microsoft Azure Well-Architected Framework - Reliability."

Microsoft Learn. This document discusses high availability as a core component of reliability, stating its goal is "to provide a consistent experience for its users with no apparent downtime." Microsoft Azure Documentation, "Choose the right networking services." Microsoft Learn. Services like Azure Traffic Manager and Azure Front Door are described as solutions for geo-distribution, enabling the direction of user traffic to the closest regional endpoint to optimize performance and availability. This aligns with deploying apps to regions where users are.

Question: 422

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

If a resource group named RG1 has a delete lock,
can delete RG1.

the delete lock must be removed before an administrator
 only a member of the global administrators group
 the delete lock must be removed before an administrator
 an Azure policy must be modified before an administrator
 an Azure tag must be added before an administrator

Answer:

the delete lock must be removed before an administrator

Explanation:

An Azure CanNotDelete lock, also known as a delete lock, prevents all users-including administrators with Owner or Global Administrator roles-from deleting the locked resource. This is a critical governance feature to safeguard important resources from accidental deletion. To successfully delete the resource group RG1, a user with sufficient permissions (typically the Owner or User Access Administrator role) must first explicitly remove the delete lock. Neither Azure Policy modifications nor the addition of Azure tags will override a resource lock.

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References:

Microsoft Azure Documentation, "Lock resources to prevent unexpected changes," Microsoft Learn. "To delete a locked resource, you must first remove the lock. CanNotDelete means authorized users can still read and modify a resource, but they can't delete the resource. Applying this lock is similar to restricting all authorized users to the permissions granted by the Reader role."

Microsoft Azure Documentation, "Permissions for locking resources," Microsoft Learn, Section: "Built-in roles." "To create or delete management locks, you must have access to Microsoft.Authorization/locks/* actions. Of the built-in roles, only Owner and User Access Administrator are granted those actions."

Question: 423

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Azure Resource Manager templates provide

Explanation:

Azure Resource Manager (ARM) templates are the correct choice because they are the primary mechanism for implementing Infrastructure as Code (IaC) in Azure. These templates, written in JSON or Bicep, declaratively define the resources, dependencies, and configurations needed for a solution. By using templates, you create a standardized, repeatable process for deploying resources, which ensures consistency across different environments (e.g., development, testing, production). This directly matches the description of a common platform for deployment that implements consistency.

References:

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Microsoft. (n.d.). What are ARM templates? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/templates/overview>

Reference Point: The "Why choose ARM templates?" section explicitly states, "Templates help you deploy your solutions consistently and repeatedly." The overview section defines them as the tool for implementing infrastructure as code.

Microsoft. (n.d.). What is Azure Policy? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/governance/policy/overview>

Reference Point: The documentation clarifies that Azure Policy is for creating, assigning, and managing policies to enforce rules and ensure compliance, not for deploying resources.

Microsoft. (n.d.). Azure resource groups. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/manage-resource-groups-portal>

Reference Point: The first paragraph states, "A resource group is a container that holds related resources for an Azure solution." This confirms its role as a logical grouping container, not a deployment platform.

Question: 424

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

An Azure Policy initiative definition is a collection of policy definitions.
 collection of policy definitions.
 collection of Azure Policy definition assignments.
 group of Azure Blueprints definitions.
 group of role-based access control (RBAC) role assignments.

Answer:

collection of policy definitions.

Explanation:

An Azure Policy initiative definition, also known as a policy set, is a group of individual policy definitions that are bundled together to achieve a specific, larger goal. This approach simplifies the process of assigning and managing multiple policies that work toward a common objective, such as enforcing a particular security standard or compliance requirement (e.g., ISO 27001). Instead of assigning each policy individually, you can assign the entire initiative at once.

References:

CertMage.com

Microsoft Corporation. (2024). What is Azure Policy? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/governance/policy/overview>.

Reference Point: In the "Initiative definition" section, it states, "An initiative definition is a collection of policy definitions that are tailored towards achieving a singular overarching goal."

Microsoft Corporation. (2023). Azure Policy initiative definition structure. Microsoft Learn.

Retrieved from

<https://learn.microsoft.com/en-us/azure/governance/policy/concepts/initiative-definition-structure>.

Reference Point: The introduction clearly states, "Initiatives allow you to group several related policy definitions to simplify assignments and management because you work with a group as a single item."

Question: 425

HOTSPOT 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
An Azure resource can have multiple Delete locks.	<input type="radio"/>	<input type="radio"/>
An Azure resource inherits locks from its resource group.	<input type="radio"/>	<input type="radio"/>
If an Azure resource has a Read-only lock, you can add a Delete lock to the resource.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

The statements are evaluated based on how Azure Resource Manager (ARM) locks function:

- An Azure resource can have multiple Delete locks: Yes. A resource is subject to all locks applied across its scope hierarchy (resource, resource group, subscription). Therefore, a resource can be affected by a Delete lock applied at the subscription level and another Delete lock applied at its resource group level simultaneously.
- An Azure resource inherits locks from its resource group: Yes. This is a fundamental characteristic of Azure locks. When a lock is applied to a parent scope, such as a resource group, all child resources within that scope automatically inherit that lock.
- If an Azure resource has a Read-only lock, you can add a Delete lock to the resource: Yes. It is possible to apply multiple locks of different types to the same resource. When conflicting locks are present, the most restrictive lock takes precedence. A Read-only lock is more restrictive than a Delete lock, so the resource would remain read-only.

References:

Microsoft Learn: Lock resources to prevent unexpected changes.

Section: Lock inheritance: "When you apply a lock at a parent scope, all resources within that scope inherit the same lock." This confirms the second statement.

Section: Notes on locks: "If you have multiple locks at different levels, the most restrictive lock in the inheritance takes precedence." This principle supports the reasoning for the first and third statements, as it describes the behavior when a resource is subject to multiple locks.

Question: 426

HOTSPOT 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
Azure Monitor can monitor the performance of on-premises computers.	<input type="radio"/>	<input type="radio"/>
Azure Monitor can send alerts to Azure AD security groups.	<input type="radio"/>	<input type="radio"/>
Azure Monitor can trigger alerts based on data in an Azure Log Analytics workspace.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

Monitor on-premises computers: Azure Monitor can collect data from on-premises computers for analysis and alerting. This is achieved by installing the Azure Monitor agent on the machines. The agent gathers performance metrics and event logs and forwards them to a Log Analytics workspace in Azure Monitor, providing a unified monitoring solution for both cloud and on-premises environments.

Send alerts to Azure AD security groups: Azure Monitor alerts use action groups to notify users. An action group can be configured to send an email to any valid email address. If an Azure AD security group is mail-enabled, it has an email address. Therefore, you can configure an action group to send alert notifications to the email address of that security group, effectively alerting its members.

Trigger alerts from Log Analytics: This is a core capability of Azure Monitor. You can create log query alert rules that automatically run Kusto Query Language (KQL) queries against data in a Log Analytics workspace on a scheduled basis. If the results of the query match specific criteria (e.g., a certain number of error events are found), the rule triggers an alert.

References:

- Microsoft Corporation. (2024). Azure Monitor agent overview. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-monitor/agents/azure-monitor-agent-overview>. This document explicitly states, "The Azure Monitor agent...collects monitoring data from the guest operating system of Azure and hybrid virtual machines."
- Microsoft Corporation. (2024). Create and manage action groups in the Azure portal. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-monitor/alerts/action-groups>. This page details the configuration of action group notifications, including the "Email/SMS/Push/Voice" action type, which allows sending notifications to any specified email address, including one associated with a mail-enabled Azure AD security group.
- Microsoft Corporation. (2024). Log alerts in Azure Monitor. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/azure-monitor/alerts/alerts-log>. This documentation provides a comprehensive overview of creating alert rules that "fire when the results of a scheduled log query match certain criteria."

Question: 427

HOTSPOT 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
A Platform as a Service (PaaS) solution provides full control of operating systems that host applications.	<input type="radio"/>	<input checked="" type="radio"/>
A Platform as a Service (PaaS) solution provides additional memory to apps by changing pricing tiers.	<input type="radio"/>	<input checked="" type="radio"/>
A Platform as a Service (PaaS) solution can automatically scale the number of instances.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

No

Yes

Yes

Explanation:

The first statement is false. In a Platform as a Service (PaaS) model, the cloud provider manages the underlying infrastructure, including the virtual machines and the operating systems. The customer manages only their applications and data. Full control over the operating system is a feature of Infrastructure as a Service (IaaS).

The second statement is true. PaaS offerings are structured in service plans or pricing tiers that dictate the amount of compute resources (CPU, memory, storage) allocated. To increase resources like memory, you scale up by moving to a higher, more powerful pricing tier.

The third statement is true. A key benefit of PaaS is autoscaling. This feature allows the platform to automatically adjust the number of application instances (scale out or scale in) based on performance metrics or a defined schedule to handle changes in workload.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology. Page 3.

<https://doi.org/10.6028/NIST.SP.800-145>

Microsoft Azure Documentation. (2023). What is Platform as a service (PaaS)? Microsoft Corp. Retrieved September 12, 2025. This document states, "With PaaS, the cloud provider delivers and manages... the operating systems."

Microsoft Azure Documentation. (2024). Azure App Service plan overview. Microsoft Corp. Retrieved September 12, 2025. This document explains, "Scale up: Get more CPU, memory, disk space... Scaling up means changing the pricing tier of your App Service plan."

Microsoft Azure Documentation. (2024). Get started with autoscale in Azure. Microsoft Corp. Retrieved September 12, 2025. This document details how "Autoscale allows you to have the right amount of resources running to handle the load on your application" by changing the instance count.

Question: 428

HOTSPOT 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
You must have physical servers to use cloud computing.	<input type="radio"/>	<input type="radio"/>
You must have internet connectivity to use cloud computing.	<input type="radio"/>	<input type="radio"/>
The costs to increase cloud computing capacity are less than the costs to increase the computing capacity of an on-premises datacenter.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

Yes

Explanation:

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You must have physical servers to use cloud computing. The first statement is false. While cloud computing relies on physical servers in a datacenter, the end-user or customer does not own, manage, or directly interact with them. The customer consumes resources (like virtual machines, storage, and applications) as a service, abstracting away the underlying physical hardware.

You must have internet connectivity to use cloud computing. The second statement is true. Cloud computing is fundamentally about delivering on-demand computing services over the internet. Internet connectivity is essential to access and manage these remote resources and services provided by a cloud provider.

The costs to increase cloud computing capacity are less than the costs to increase the computing capacity of an on-premises datacenter. The third statement is generally true. Cloud computing offers a pay-as-you-go model, allowing for rapid and scalable resource provisioning without the significant upfront capital expenditures required for purchasing, installing, and maintaining physical hardware in an on-premises datacenter. This makes scaling up far more cost-effective.

References:

Statement 1: "Cloud Computing: Concepts, Technology & Architecture" by Thomas Erl, Ricardo Puttini, and Zaigham Mahmood, Section 1.3, "Cloud as a Service," page 15. The text describes how cloud services abstract away the underlying physical infrastructure, which is managed by the cloud provider, not the end user.

Statement 2: "NIST SP 800-145, The NIST Definition of Cloud Computing," Section 2, "Essential Characteristics," page 2. This document defines "broad network access" as a key characteristic, stating, "Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (e.g., mobile phones, laptops, and PDAs)." This implies a necessary network connection, typically the internet.

Statement 3: "Cloud Computing: Concepts, Technology & Architecture" by Thomas Erl, Ricardo Puttini, and Zaigham Mahmood, Section 1.1, "Cloud Computing Principles and Concepts," page 10. This section explains the "on-demand self-service" and "rapid elasticity" principles, which are enabled by a pay-as-you-go model that avoids the high capital costs and resource over-provisioning associated with traditional on-premises infrastructure.

Question: 429

HOTSPOT For each of the following statements, select Yes if the statement is true. Otherwise, select Mo. NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
Azure Arc can manage physical servers that run Linux.	<input type="radio"/>	<input type="radio"/>
Azure Arc can manage Azure Kubernetes Service (AKS) clusters at scale.	<input type="radio"/>	<input type="radio"/>
Azure Arc can manage a third-party database solution hosted outside of Azure.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

Azure Arc can manage physical servers that run Linux: Yes. Azure Arc-enabled servers are a core component of Azure Arc, designed to connect and manage both physical and virtual servers hosted outside of Azure. It supports various Linux distributions (such as Ubuntu, CentOS, and SUSE Linux Enterprise Server) and Windows Server, allowing them to be managed as if they were native Azure resources.

Azure Arc can manage Azure Kubernetes Service (AKS) clusters at scale: No. Azure Arc is designed to project and manage non-Azure resources into the Azure control plane. Azure Kubernetes Service (AKS) is a native Azure service and is already managed through Azure's built-in tools like Azure Portal, CLI, Azure Policy, and Azure Monitor. Azure Arc is used for managing Kubernetes clusters running on-premises, in other clouds (like AWS or GCP), or at the edge, not for managing AKS itself.

Azure Arc can manage a third-party database solution hosted outside of Azure: Yes. You can onboard the server (physical or virtual, Windows or Linux) that hosts a third-party database (e.g., MySQL, Oracle) to Azure using Azure Arc-enabled servers. This allows you to apply Azure governance, security, and monitoring at the operating system level for the machine hosting the database, effectively extending Azure management to that solution's environment.

References:

Microsoft Docs (Azure Arc-enabled servers overview): "Azure Arc-enabled servers lets you manage Windows and Linux physical servers and virtual machines hosted outside of Azure, on your corporate network, or other cloud provider." (Source: Microsoft, Azure Arc-enabled servers overview, docs.microsoft.com)

Microsoft Docs (Azure Arc-enabled Kubernetes): "With Azure Arc-enabled Kubernetes, you can attach and configure Kubernetes clusters located either inside or outside of Azure." This document focuses on connecting clusters from external environments like on-premises data centers, Amazon EKS, or Google GKE, not Azure's own AKS. (Source: Microsoft, What is Azure Arc-enabled Kubernetes?, docs.microsoft.com)

Microsoft Docs (Connect hybrid machines to Azure): The documentation lists supported operating systems for the Connected Machine agent, which includes multiple Linux distributions, confirming the capability to manage them. Workloads running on these machines, such as databases, are managed by extension through the management of the underlying OS. (Source: Microsoft, Connected Machine agent prerequisites, docs.microsoft.com)

Question: 430

HOTSPOT 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
Data that is stored in an Azure Storage account automatically has at least three copies.	<input type="radio"/>	<input type="radio"/>
All data that is copied to an Azure Storage account is backed up automatically to another Azure data center.	<input type="radio"/>	<input type="radio"/>
An Azure Storage account can contain only up to 2 TB of data and up to one million files.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

No

Explanation:

Yes: All Azure Storage accounts use a redundancy model to ensure data durability. The most basic option, Locally-Redundant Storage (LRS), maintains a minimum of three synchronous copies of your data within a single physical location (data center). This is the baseline for all storage accounts.

No: Data is only replicated to a secondary data center (in a different geographic region) if you select a geo-redundant storage option, such as Geo-Redundant Storage (GRS) or Geo-Zone-Redundant Storage (GZRS). If you choose Locally-Redundant Storage (LRS), your data is not copied to another data center.

No: Standard Azure Storage accounts have a much higher capacity limit. The current limit is 5 petabytes (PiB), which is significantly more than the 2 terabytes (TB) stated in the question. There is no specific limit of one million files; limits are based on capacity and request rates.

References:

Azure Storage redundancy: Microsoft Learn. (2024). Azure Storage redundancy. Under the "Locally-redundant storage" section, it states, "Locally-redundant storage (LRS) replicates your data three times within a single data center in the primary region."

Scalability and performance targets for standard storage accounts: Microsoft Learn. (2024). Scalability and performance targets for standard storage accounts. The table under the "Scale

targets for standard storage accounts" section clearly lists the capacity for a standard storage account as "5 PiB".

Question: 431

HOTSPOT 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
Single sign-on (SSO) requires that all users sign in by using the Microsoft Authenticator app.	<input type="radio"/>	<input type="radio"/>
Authentication is the process of establishing which level of access an authenticated user or service has.	<input type="radio"/>	<input type="radio"/>
Conditional Access uses signals collected from a user during the sign-in process to decide whether to allow or deny access requests.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

No. Single sign-on (SSO) is a method of authentication that enables users to securely authenticate with multiple applications and websites by logging in only once with just one set of credentials. It does not inherently require the use of the Microsoft Authenticator app or any other specific multi-factor authentication (MFA) method. While MFA can be combined with SSO for enhanced security, it is a separate concept.

No. This statement describes authorization, not authentication. Authentication is the process of proving a user's identity (i.e., verifying "who you are"). Authorization is the process that occurs after successful authentication to determine what level of access or permissions an authenticated user has (i.e., "what you are allowed to do").

Yes. This is the core function of Conditional Access. It acts as a policy engine that uses various signals-such as user identity, location, device health, application, and real-time risk detection to make automated decisions. Based on these signals, it enforces organizational policies to either grant access, block access, or require additional verification steps like MFA.

References:

Microsoft Entra documentation. (n.d.). What is single sign-on in Microsoft Entra ID? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/entra/identity/enterprise-apps/what-is-single-sign-on>. (This

document explains that SSO simplifies user access and does not mention any requirement for the Microsoft Authenticator app.)

Microsoft identity platform documentation. (n.d.). Authentication vs. authorization. Microsoft Learn. Retrieved from

<https://learn.microsoft.com/en-us/entra/identity-platform/authentication-vs-authorization>. (This source explicitly defines authentication as verifying identity and authorization as determining access rights for an authenticated identity, directly contradicting the second statement.)

Microsoft Entra documentation. (n.d.). What is Conditional Access in Microsoft Entra ID?

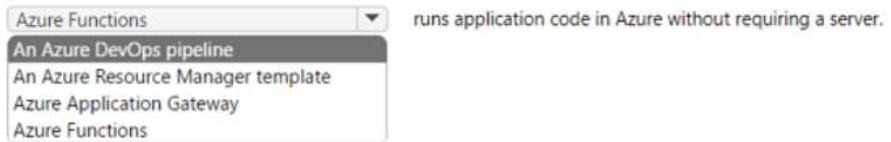
Microsoft Learn. Retrieved from

<https://learn.microsoft.com/en-us/entra/identity/conditional-access/overview>. (The overview section states, "Conditional Access brings signals together, to make decisions, and enforce organizational policies.")

Question: 432

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Azure Functions

Explanation:

Azure Functions is a serverless compute service designed to run event-triggered code without the need to explicitly provision or manage the underlying infrastructure. This allows developers to focus on writing the application logic while Azure handles the server management, scaling, and resource allocation automatically based on demand. This model is the essence of serverless computing, where the cloud provider dynamically manages the machine resources.

References:

Microsoft Azure Documentation: In the official [overview](#) of Azure Functions, it states, "Azure Functions is a serverless compute service that lets you run event-triggered code without having to explicitly provision or manage infrastructure."

Source: Microsoft Learn, "What is Azure Functions," Document ID: [azure-functions-overview](#), Section: "What is Azure Functions?".

Microsoft Azure Documentation: Further detailing the serverless nature, the documentation explains, "Azure Functions is a serverless solution that allows you to write less code, maintain less infrastructure, and save on costs. Instead of worrying about deploying and maintaining servers, the cloud infrastructure provides all the up-to-date resources needed to keep your applications running."

Source: Microsoft Learn, "An introduction to Azure Functions," Document ID: [intro-to-azure-functions](#), Section: "What is Azure Functions?".

Question: 433

In the infrastructure as a service (IaaS) cloud service model, which two components are the responsibility of the cloud service provider? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. the configuration and maintenance of storage
- B. the installation and configuration of the operating system
- C. maintaining the hardware
- D. the network configuration
- E. physical security of the datacenter infrastructure

Answer:

C, E

Explanation:

In the Infrastructure as a Service (IaaS) model, the cloud provider is responsible for managing the core physical infrastructure. This includes the physical servers (hardware), storage, and networking components within their datacenters. A fundamental part of this responsibility is ensuring the physical security of these datacenters, which involves controlling access and protecting the hardware from physical threats. The customer, in turn, is responsible for managing the resources deployed on this infrastructure, such as the operating systems, virtual networks, and applications. This division of duties is a core concept of the shared responsibility model for IaaS.

Why Incorrect Options are Wrong:

- A. The customer is responsible for configuring and managing their virtual storage resources, such as creating and formatting virtual disks.
- B. The customer is responsible for deploying, managing, and patching the operating systems on the virtual machines they create.
- D. The customer is responsible for configuring their virtual networks, including subnets, IP addressing, and network security rules.

References:

1. Microsoft Learn. "Shared responsibility in the cloud." Microsoft Azure Documentation. This document provides a clear diagram showing that in the IaaS model, the cloud provider is responsible for the "Physical datacenter," "Physical network," and "Physical hosts." The customer is responsible for the "Operating system," "Network controls," and "Applications."

Reference: See the "Shared responsibility model" diagram under the "Division of responsibility"

section.

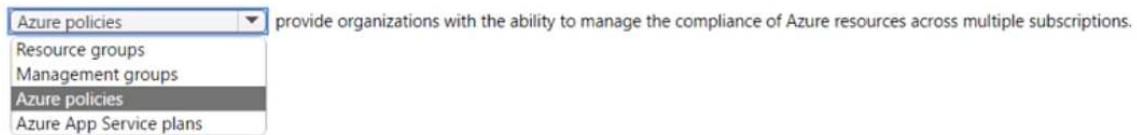
2. Microsoft Learn. "Describe cloud service types." AZ-900: Describe cloud concepts. This module explains that with IaaS, "The cloud provider is responsible for maintaining the hardware, network connectivity (to the internet), and physical security."

Reference: See the "Infrastructure-as-a-service (IaaS)" section.

Question: 434

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Azure policies

Explanation:

Azure Policy is the correct service because its fundamental purpose is to enforce organizational standards and assess resource compliance at scale. It functions by evaluating Azure resources against assigned rules (policies) to identify non-compliant configurations. Organizations use Azure Policy to create, assign, and manage these rules to ensure resources adhere to corporate standards and service level agreements (SLAs). While Management groups provide a hierarchical scope to efficiently apply these policies across multiple subscriptions, it is the Azure Policy service itself that provides the core capability to manage compliance.

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References:

Microsoft Learn. (n.d.). What is Azure Policy?. Retrieved September 12, 2025, from <https://learn.microsoft.com/en-us/azure/governance/policy/overview>

Reference Point: The "Overview" section states: "Azure Policy is a service in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant with your corporate standards and service-level agreements."

Microsoft Learn. (n.d.). What are Azure management groups?. Retrieved September 12, 2025, from <https://learn.microsoft.com/en-us/azure/governance/management-groups/overview>

Reference Point: The introduction clarifies the role of management groups: "Azure management groups provide a level of scope above subscriptions. You organize subscriptions into containers called 'management groups' and apply your governance conditions to the management groups. All subscriptions within a management group automatically inherit the conditions applied to the management group." This confirms they are a scope for applying policies, not the compliance tool itself.

Question: 435

You have a web app that runs in Azure. You need to identify the amount of time it takes for web pages to load in a user's browser. What should you use?

- A. Azure Monitor alerts
- B. Application Insights in Azure Monitor
- C. Azure Network Watcher
- D. Log Analytics

Answer:

B

Explanation:

Application Insights, a feature of Azure Monitor, is an Application Performance Management (APM) service designed to monitor live web applications. It collects telemetry from both server and client-side components. By adding a small JavaScript instrumentation package to your web pages, Application Insights can gather data directly from users' browsers, including detailed metrics on page view load times, AJAX call performance, and browser exceptions. This makes it the correct tool for identifying how long web pages take to load for end-users.

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Why Incorrect Options are Wrong:

- A. Azure Monitor alerts: Alerts are a feature used to proactively notify you when specific performance thresholds are met; they do not collect the primary performance data itself.
- C. Azure Network Watcher: This service provides tools to monitor and diagnose network issues at the infrastructure level (e.g., between VMs), not application-level performance within a user's browser.
- D. Log Analytics: Log Analytics is a tool for querying and analyzing log data collected by Azure Monitor. While it can query data from Application Insights, it is not the service that collects the client-side telemetry.

References:

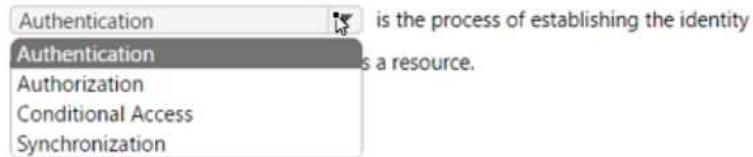
1. Microsoft Learn. "What is Application Insights?". Azure Monitor Documentation. "It monitors... Request rates, response times, and failure rates... Page views and load performance reported by users' browsers."
2. Microsoft Learn. "Application Insights JavaScript SDK". Azure Monitor Documentation. "The Application Insights JavaScript SDK collects usage data from your browser-based application. It can be used for client-side monitoring and telemetry collection... The SDK automatically collects... Page view load time."
3. Microsoft Learn. "AZ-900: Describe Azure management and governance". Microsoft Azure

Fundamentals: Describe Azure architecture and services. Section: "Describe Azure monitoring and management tools". This module describes Application Insights as the tool for detecting and diagnosing issues in web apps and services.

Question: 436

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Authentication

Explanation:

Authentication is the security process that verifies the identity of a user, system, or entity attempting to gain access to a resource. It answers the question, "Are you who you say you are?". This is typically done by validating one or more credentials, such as a password, a security token, or a biometric scan. This process is distinct from Authorization, which occurs after successful authentication and determines the specific permissions or access rights the verified user has. Conditional Access is a policy-based evaluation, and Synchronization is a data consistency process.

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References:

Microsoft Entra Documentation, "Authentication vs. authorization." Microsoft Learn. Accessed September 12, 2025.

Quote: "Authentication is the process of proving that a person is who they say they are... It's the process of verifying a user's identity." This document clearly distinguishes authentication as the act of establishing identity before granting access.

National Institute of Standards and Technology (NIST), Special Publication 800-63-3, "Digital Identity Guidelines," June 2017.

Reference: Section 1.1, Page 1.

Quote: "In the digital world, authentication is the process of establishing confidence in user identities that are presented electronically to an information system."

Pfleeger, C. P., Pfleeger, S. L., & Margulies, J., Security in Computing, 5th ed., Pearson Education, Inc., 2015.

Reference: Glossary, page 839.

Quote: "Authentication: The process of verifying the claimed identity of a user, device, or other entity in a computer system, often as a prerequisite to allowing access to resources in a system."

Question: 437

Which two features of services can be integrated with Azure Monitor? Each correct answer presents part of the solution. NOTE Each correct answer is worth one point:

- A. Azure Service Health
- B. Azure Advisor
- C. Azure status
- D. Application Insights
- E. Log Analytics

Answer:

D, E

Explanation:

Azure Monitor is a comprehensive solution for collecting, analyzing, and acting on telemetry from cloud and on-premises environments. Its capabilities are built upon two fundamental data types: metrics and logs.

Application Insights is a core feature of Azure Monitor, providing extensible Application Performance Management (APM) to monitor live applications. It is not merely integrated but is an intrinsic part of the Azure Monitor platform for analyzing application data.

Log Analytics is the primary tool within the Azure portal for interacting with Azure Monitor Logs. It allows users to write, execute, and analyze complex Kusto Query Language (KQL) queries against the log data collected by Azure Monitor, making it a fundamental component of the service.

Why Incorrect Options are Wrong:

- A. Azure Service Health: This is a separate Azure service that provides personalized alerts on service issues. While it can send its alerts to Azure Monitor, it is an external data source, not a core analytical feature of Azure Monitor.
- B. Azure Advisor: This is a distinct recommendation service. Alerts can be configured in Azure Monitor based on Advisor recommendations, but Advisor itself is not a fundamental component or feature of the Monitor service.
- C. Azure status: This is a public webpage that displays the global health of Azure services. It does not integrate with a user's specific Azure Monitor instance for analysis or alerting.

References:

1. Microsoft Documentation, Azure Monitor overview. "Application Insights is a feature of Azure Monitor... Log Analytics is a tool in the Azure portal to edit and run log queries with data in Azure Monitor Logs."

Source: Microsoft Learn, learn.microsoft.com/en-us/azure/azure-monitor/overview, Section: "What is Azure Monitor?".

2. Microsoft Documentation, Application Insights overview. "Application Insights, a feature of Azure Monitor, is an extensible Application Performance Management (APM) service for developers and DevOps professionals."

Source: Microsoft Learn,

learn.microsoft.com/en-us/azure/azure-monitor/app/app-insights-overview, Section: "What is Application Insights?".

3. Microsoft Documentation, Log Analytics overview. "Log Analytics is a tool in the Azure portal that's used to edit and run log queries with data in Azure Monitor Logs."

Source: Microsoft Learn,

learn.microsoft.com/en-us/azure/azure-monitor/logs/log-analytics-overview, Introduction paragraph.

4. Microsoft Documentation, Azure Service Health. This document describes Service Health as a service that can create activity log alerts, which are then managed by Azure Monitor, illustrating it as an integrated but separate service.

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Source: Microsoft Learn,

learn.microsoft.com/en-us/azure/service-health/alerts-activity-log-service-notifications-portal, Section: "Create an alert rule".

Question: 438

HOTSPOT 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
Azure AD requires domain controllers on Azure virtual machines.	<input type="radio"/>	<input type="radio"/>
Azure AD provides authentication services for Azure and Microsoft 365.	<input type="radio"/>	<input checked="" type="radio"/>
Each user account in Azure AD can be assigned only one Microsoft 365 license.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

Azure AD requires domain controllers on Azure virtual machines. CertMage.com No. Azure Active Directory (Azure AD) is a fully managed, multitenant, cloud-based directory and identity management service. It operates as a service (IDaaS) and does not require customers to deploy or manage domain controllers on virtual machines, unlike traditional on-premises Active Directory Domain Services (AD DS).

Azure AD provides authentication services for Azure and Microsoft 365. Yes. A primary function of Azure AD is to serve as the identity provider for Microsoft's cloud services. It handles user authentication and authorization for subscriptions and resources in both Azure and Microsoft 365, ensuring secure access management across these platforms.

Each user account in Azure AD can be assigned only one Microsoft 365 license. No. A single user account in Azure AD can be assigned multiple licenses simultaneously. For example, a user might have a base license like Microsoft 365 E3 and also be assigned add-on licenses for specific services such as Power BI Pro or Visio Plan 2. This allows for flexible and granular control over service access.

References:

Microsoft Entra documentation: "What is Microsoft Entra ID?". Microsoft Learn. States that Microsoft Entra ID (formerly Azure AD) is a cloud-based identity and access management service. It contrasts this with Windows Server Active Directory, which requires deploying domain controllers.

Microsoft Entra documentation: "Relationship of Azure subscriptions to Microsoft Entra ID". Microsoft Learn. Explains that "Azure uses Microsoft Entra ID for identity management for its subscribers... Microsoft 365 also uses Microsoft Entra ID to manage its users."

Microsoft 365 documentation: "Assign or unassign licenses for users in the Microsoft 365 admin center". Microsoft Learn. The procedures in this document demonstrate how to select and assign multiple products (licenses) to a single user account. The section "Assign licenses to multiple users" explicitly shows the process of checking boxes for multiple available licenses for assignment.

Question: 439

HOTSPOT 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
ExpressRoute uses Border Gateway Protocol (BGP).	<input type="radio"/>	<input type="radio"/>
ExpressRoute uses the internet to connect an on-premises network to Azure.	<input type="radio"/>	<input type="radio"/>
You can configure multiple ExpressRoute circuits to connect an on-premises datacenter to Azure.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

ExpressRoute uses Border Gateway Protocol (BGP): Yes. Azure ExpressRoute utilizes BGP, a dynamic routing protocol, to exchange routes between your on-premises network and Microsoft's networks. This is essential for establishing both private peering (for Azure virtual networks) and Microsoft peering (for public services like Microsoft 365).

ExpressRoute uses the internet to connect an on-premises network to Azure: No. ExpressRoute establishes a private, dedicated connection to Microsoft's global network through a connectivity provider. A key benefit of ExpressRoute is that it bypasses the public internet, offering greater reliability, faster speeds, consistent latencies, and enhanced security compared to internet-based connections like a Site-to-Site VPN.

You can configure multiple ExpressRoute circuits to connect an on-premises datacenter to Azure: Yes. For high availability and redundancy, you can provision multiple ExpressRoute circuits. These circuits can connect to the same or different peering locations, ensuring that your connection to Azure services remains available even if one circuit experiences an outage. This is a recommended design pattern for business-critical workloads.

References:

Microsoft Learn. "ExpressRoute circuits and peering." Azure Documentation. This document states, "ExpressRoute uses the BGP protocol to exchange routes between your on-premises network, your instances in Azure, and Microsoft public addresses."

Microsoft Learn. "What is Azure ExpressRoute?" Azure Documentation. This article explicitly contrasts ExpressRoute with other connection methods: "Azure ExpressRoute lets you extend your on-premises networks into the Microsoft cloud over a private connection with the help of a connectivity provider. With ExpressRoute, you can establish connections to Microsoft cloud services... This connectivity is not over the public Internet."

Microsoft Learn. "Designing for high availability with ExpressRoute." Azure Documentation. This document details the practice of using multiple circuits: "To achieve high availability, it is recommended to have at least two ExpressRoute circuits connecting your on-premises network to Azure."

Question: 440

You have an Azure subscription. You plan to create a virtual machine. Where will the virtual machine be placed in Azure?

- A. In a storage account
- B. In a resource group
- C. In an administrative unit
- D. In an application group

Answer:

B

Explanation:

In Azure, all resources must be deployed into a resource group. A resource group is a logical container that holds related resources for an Azure solution, such as virtual machines, storage accounts, and virtual networks. When you create a virtual machine, one of the mandatory steps is to specify which resource group it will belong to. This organization is fundamental to the Azure Resource Manager (ARM) model, which provides a unified management layer for creating, updating, and deleting resources in your Azure subscription.

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Why Incorrect Options are Wrong:

- A. In a storage account: A storage account is an Azure resource that stores data, including the virtual hard disks (VHDs) for a VM, but it does not contain the VM resource itself.
- C. In an administrative unit: Administrative units are an Azure Active Directory (Azure AD) feature used to delegate administrative permissions over users and groups, not to contain Azure infrastructure resources like VMs.
- D. In an application group: Application groups are a component of Azure Virtual Desktop used to publish applications to users; they are not a general-purpose container for Azure resources.

References:

1. Microsoft Learn. "What is Azure Resource Manager?". Azure Resource Manager documentation. "A resource group is a container that holds related resources for an Azure solution... Every resource must exist in one and only one resource group."
2. Microsoft Learn. "Azure resource groups". Azure governance and management documentation. "A resource group is a fundamental element of the Azure platform. A resource group is a logical container for resources that are deployed within an Azure subscription."
3. Microsoft Learn. "Quickstart: Create a Windows virtual machine in the Azure portal". Virtual Machines documentation. In the "Create a virtual machine" section, Step 4 under the "Basics" tab explicitly states: "Under Project details, ... select Create new to create a new resource group."

This demonstrates that creating or selecting a resource group is a required step in VM creation.

Question: 441

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Microsoft Defender for Cloud

Explanation:

Microsoft Defender for Cloud is the correct service for viewing regulatory compliance reports. It functions as a Cloud Security Posture Management (CSPM) tool that continuously assesses your Azure, hybrid, and multicloud environments against security benchmarks and regulatory standards. Its regulatory compliance dashboard provides a centralized view of your compliance posture against frameworks like PCI DSS, ISO 27001, and SOC TSP. It maps compliance controls to specific Azure security assessments and provides recommendations to address any deviations, helping to streamline the audit process.

References:

Microsoft Learn, Official Documentation. "Tutorial: Improve your regulatory compliance." This document explicitly states, "Microsoft Defender for Cloud helps streamline the process for meeting regulatory compliance requirements, using the regulatory compliance dashboard... From the dashboard, you can view your compliance status with a particular standard or regulation."

Microsoft Learn, Official Documentation. "Overview of the regulatory compliance dashboard in Microsoft Defender for Cloud." This source details the feature, noting: "Defender for Cloud continuously assesses your hybrid cloud environment to analyze the risk factors according to the controls and best practices in the standards that you've applied to your subscriptions... The regulatory compliance dashboard shows the status of all the assessments within your environment for your chosen standards and regulations."

Question: 442

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

hybrid

Explanation:

A hybrid cloud is a computing environment that integrates an organization's on-premises (private) infrastructure with public cloud services. In the given scenario, the Azure web app resides in the public cloud, while the Microsoft SQL server is on-premises. The communication and data exchange between these two distinct environments is the defining characteristic of a hybrid cloud architecture. This model allows an organization to leverage the scalability of the public cloud for its applications while keeping its database within its own private infrastructure, often for security, compliance, or legacy system reasons.

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References:

Microsoft Azure Official Documentation. (n.d.). What is hybrid cloud computing? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/strategy/define-cloud-adoption-strategy/hybrid-cloud-strategy>.

Reference Point: The document states, "A hybrid cloud is a computing environment that combines an on-premises datacenter (also called a private cloud) with a public cloud, allowing data and applications to be shared between them."

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

<https://doi.org/10.6028/NIST.SP.800-145>

Reference Point: Section 2, "Deployment Models," page 3, defines Hybrid Cloud: "The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities but are bound together by standardized or proprietary technology that enables data and application portability..."

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58. <https://doi.org/10.1145/1721654.1721672>

Reference Point: Page 51 discusses the interaction between private and public clouds, noting that "an enterprise might use a public Cloud to run a batch job... that requires a large number of

computers for a short period of time, while using its internal datacenter for the online services that the batch job supports." This describes the principle of a hybrid model.

Question: 443

HOTSPOT 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
Adding more RAM to a virtual machine is an example of Horizontal scaling.	<input type="radio"/>	<input type="radio"/>
Adding an additional virtual machine based upon demand is an example of Vertical scaling.	<input type="radio"/>	<input type="radio"/>
Horizontal scaling can occur automatically or manually.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

Yes

Explanation:

Vertical scaling, also known as scaling up, involves increasing the resources of a single machine, such as adding more CPU or RAM. Therefore, adding more RAM to a virtual machine is an example of vertical scaling, not horizontal.

Horizontal scaling, also known as scaling out, involves adding more machines to a resource pool to distribute the load. Adding an additional virtual machine is an example of horizontal scaling, not vertical.

Horizontal scaling can be performed manually by an administrator who adds or removes instances as needed. It can also be done automatically (often called autoscaling) by configuring rules that trigger the addition or removal of instances based on performance metrics like CPU utilization or network traffic.

References:

Microsoft Azure Documentation. (n.d.). Performance efficiency design principles. Azure Architecture Center. Retrieved from <https://learn.microsoft.com/en-us/azure/architecture/framework/scalability/performance-efficiency>. This document states: "Vertical scaling (scaling up) means increasing the capacity of a resource... Horizontal scaling (scaling out) is adding new instances of a resource, such as VMs..." It also discusses autoscaling as a mechanism for horizontal scaling.

Hassan, H. A. (2020). Autonomic and elastic management of cloud computing environments. In Autonomic and Elastic Services in Contemporary Cloud Environments (pp. 1-26). IGI Global. Chapter 1 distinguishes between vertical elasticity ("changing the capacity of an existing single virtual machine (VM) by adjusting its resources (e.g., CPU cores or memory size)") and horizontal elasticity ("changing the number of VMs allocated to an application"). It also covers the automation of these processes. DOI: 10.4018/978-1-7998-2173-2.ch001

Armbrust, M., et al. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58.

Section 3, "Classes of Utility Computing," describes how cloud providers offer the illusion of infinite computing resources on-demand, which is achieved through rapid, automated horizontal scaling. It notes that "a cloud user can provision and de-provision servers on a fine-grained basis and control the number of server instances." DOI: <https://doi.org/10.1145/1721654.1721672>

Question: 444

HOTSPOT 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
You can deploy Azure Resource Manager (ARM) templates by using the Azure portal.	<input type="radio"/>	<input type="radio"/>
Azure Resource Manager (ARM) templates can define infrastructure by using code.	<input type="radio"/>	<input type="radio"/>
Each Azure resource to be deployed requires a separate Azure Resource Manager (ARM) template.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

Explanation:

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Yes: The Azure portal provides a user interface for deploying ARM templates directly. You can use the "Deploy a custom template" service to load a template from a file, paste the JSON content, or use a quickstart template from a repository.

Yes: ARM templates are a primary example of Infrastructure as Code (IaC) on Azure. They use a declarative JSON syntax to define the resources, properties, and dependencies for a deployment, allowing infrastructure to be managed and versioned just like application code.

No: A key benefit of ARM templates is the ability to define and deploy multiple related resources as a single, coordinated unit. A single template file contains a resources array, which can hold the definitions for many different Azure resources (e.g., a virtual machine, storage account, and virtual network) that are deployed together.

References:

Microsoft Learn: "Deploy resources with ARM templates and Azure portal." This document provides a step-by-step tutorial on how to use the Azure portal to deploy a custom template. It explicitly states, "Learn how to use the Azure portal with Azure Resource Manager templates (ARM templates) to deploy your Azure resources." (Section: "Create a template from scratch").

Microsoft Learn: "What are ARM templates?" This article defines ARM templates and their

benefits. It states, "Resource Manager templates are an example of infrastructure as code." (Section: "Why choose ARM templates?").

Microsoft Learn: "Understand the structure and syntax of ARM templates." This document details the schema of an ARM template. It describes the resources section as follows: "In the resources section of the template, you define the resources that are deployed or updated... You can define multiple resources of the same type or different types." (Section: "Resources").

Question: 445

HOTSPOT 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
Microsoft SQL Server 2019 installed on an Azure virtual machine is an example of platform as a service (PaaS).	<input type="radio"/>	<input type="radio"/>
Azure SQL Database is an example of platform as a service (PaaS).	<input type="radio"/>	<input type="radio"/>
Azure Cosmos DB is an example of software as a service (SaaS).	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

Microsoft SQL Server on an Azure VM is IaaS. When you install software onto a virtual machine, you are responsible for managing the operating system, patching, and the software itself. The cloud provider only manages the underlying hardware infrastructure. This model is known as Infrastructure as a Service (IaaS), not PaaS.

Azure SQL Database is PaaS. This is a managed database service where Microsoft handles the underlying infrastructure, operating system, and database engine software. You manage the data and the database itself, which is the definition of Platform as a Service (PaaS).

Azure Cosmos DB is PaaS. Similar to Azure SQL Database, Azure Cosmos DB is a fully managed database service. It provides a platform for developers to build applications upon, without managing the underlying infrastructure. This makes it a PaaS offering. Software as a Service (SaaS) refers to fully-featured applications delivered to end-users over the internet, such as Microsoft 365.

References:

Microsoft Azure Documentation, "What is Platform as a service (PaaS)?" states, "PaaS includes infrastructure-servers, storage, and networking-but also middleware, development tools, business intelligence (BI) services, database management systems, and more... With PaaS, developers can create applications without the burden of server management. Examples of PaaS include Azure SQL and Azure App Service."

Microsoft Azure Documentation, "What is IaaS vs. PaaS vs. SaaS?" describes IaaS: "You rent IT infrastructure... from a cloud provider on a pay-as-you-go basis... You are responsible for the operating system and any data, applications, middleware, and runtimes." This aligns with managing SQL Server on an Azure VM.

Microsoft Azure Documentation, "Welcome to Azure Cosmos DB" describes it as a "fully managed NoSQL and relational database for modern app development," which is characteristic of a PaaS model where the underlying platform is managed for the developer.

Question: 446

HOTSPOT 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
Cloud computing offers lower capital expenditure (CapEx) costs than on-premises deployments.	<input type="radio"/>	<input type="radio"/>
Cloud computing provides the same configuration options as on-premises deployments.	<input type="radio"/>	<input type="radio"/>
Cloud computing can scale when a business requires change.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

Lower CapEx: Cloud computing shifts IT spending from Capital Expenditure (CapEx)-upfront costs for physical servers and infrastructure-to Operational Expenditure (OpEx), a pay-as-you-go model. This avoids large initial investments, making the first statement true.

Configuration Options: On-premises deployments offer complete control over the physical hardware and its specific configuration. Cloud services, even at the Infrastructure as a Service (IaaS) level, abstract the underlying physical hardware. The provider manages the physical infrastructure, meaning the consumer does not have the same level of granular control as they would in their own data center. Therefore, the configuration options are not identical, making the second statement false.

Scalability: A core characteristic of cloud computing is rapid elasticity, which is the ability to quickly and automatically scale resources up or down to meet changing business demands. This allows for flexibility and efficiency. The third statement is therefore true.

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology. Page 2.

<https://doi.org/10.6028/NIST.SP.800-145> (This source defines "Rapid elasticity" as a key characteristic).

Microsoft Azure Documentation. (n.d.). What are CapEx and OpEx? Retrieved from Microsoft Docs. (This document officially explains the shift from capital to operational expenditure as a primary benefit of the cloud model).

Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2010). A View of Cloud Computing. Communications of the ACM, 53(4), 50-58. Section 3.1, "The Illusion of Infinite Computing Resources."

<https://doi.org/10.1145/1721654.1721672> (This seminal paper discusses the elasticity and economic model of cloud computing).

Question: 447

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



enables users to authenticate to multiple applications by using single sign-on (SSO).

Answer:

Azure AD

Explanation:

Azure Active Directory (Azure AD), now part of Microsoft Entra, is Microsoft's cloud-based identity and access management service. A primary function of Azure AD is to act as a central identity provider. It enables single sign-on (SSO), which allows users to authenticate once with a single set of credentials and then access multiple configured applications and resources without needing to sign in again for each one. This simplifies user access and enhances security by centralizing authentication management. The other options serve different security purposes: Application security groups manage network traffic, Azure Key Vault secures secrets, and Microsoft Defender for Cloud protects cloud workloads.

References:

Microsoft Entra documentation Microsoft Learn: "What is single sign-on in Azure Active Directory?". This document explicitly states, "Single sign-on (SSO) adds security and convenience when users sign-in to applications in Azure Active Directory (Azure AD)... With single sign-on, users sign in once with one account to access domain-joined devices, company resources, software as a service (SaaS) applications, and web applications."

Microsoft Entra documentation Microsoft Learn: "What is Azure Active Directory?". In the introductory section, the documentation lists "Single sign-on (SSO)" as a core feature of Azure AD, simplifying user access to thousands of cloud applications.

Question: 448

HOTSPOT 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
Microsoft Defender for Cloud can monitor Azure resources and on-premises resources.	<input type="radio"/>	<input type="radio"/>
All Microsoft Defender for Cloud features are free.	<input type="radio"/>	<input type="radio"/>
From Microsoft Defender for Cloud, you can download a Regulatory Compliance report.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

Microsoft Defender for Cloud can monitor Azure resources and on-premises resources. (Yes) Microsoft Defender for Cloud is a hybrid cloud security solution. By leveraging Azure Arc, it extends its security posture management and threat protection capabilities beyond Azure to on-premises datacenters and even other cloud environments like AWS and GCP. This allows for unified security management across all resources.

All Microsoft Defender for Cloud features are free. (No) Microsoft Defender for Cloud offers two main tiers. The foundational Cloud Security Posture Management (CSPM) features, such as continuous assessment and security recommendations, are free. However, the enhanced security features, which provide advanced threat protection for various workloads (like servers, databases, and storage), are part of paid Microsoft Defender plans and are billed per resource.

From Microsoft Defender for Cloud, you can download a Regulatory Compliance report. (Yes) A key feature of Microsoft Defender for Cloud is the regulatory compliance dashboard. This tool continuously assesses the hybrid cloud environment against controls from various industry standards and regulations (e.g., ISO 27001, PCI DSS, NIST). You can generate and download PDF reports directly from this dashboard, which provides a summary of your compliance status for auditors and stakeholders.

References:

Hybrid Cloud Monitoring: Microsoft. (2024). Connect your non-Azure machines to Microsoft Defender for Cloud. Microsoft Learn. In the "Overview" section, it states, "Microsoft Defender for Cloud can protect your non-Azure machines that are located in your on-premises datacenters, or in your AWS or GCP clouds."

Pricing and Features: Microsoft. (2024). Microsoft Defender for Cloud pricing. Microsoft Azure. The page clearly distinguishes between the "Foundational CSPM" which is "Free" and the various "Microsoft Defender for Cloud plans" which have associated costs for workload protection.

Regulatory Compliance Reports: Microsoft. (2024). Tutorial: Improve your regulatory compliance. Microsoft Learn. The section "Download a compliance report" provides a step-by-step guide, stating "You can download a PDF report that provides a high-level summary of your compliance status for a particular standard."

Question: 449

You need to start Azure Cloud Shell. What should you use?

- A. Azure PowerShell
- B. an Azure Resource Manager (ARM) template
- C. the Azure portal
- D. Azure Command-Line Interface (CLI)

Answer:

C

Explanation:

Azure Cloud Shell is an interactive, authenticated, browser-accessible shell for managing Azure resources. The most direct way to launch it is through the Azure portal. The portal's top navigation bar includes a dedicated Cloud Shell icon () that, when selected, opens the Cloud Shell pane directly within the browser interface. This provides immediate access to either a Bash or PowerShell command-line environment pre-configured with the necessary tools and authentication for managing your Azure subscription.

Why Incorrect Options are Wrong:

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- A. Azure PowerShell: This is a command-line shell and scripting language available within Azure Cloud Shell, not the method used to start the Cloud Shell service itself.
- B. an Azure Resource Manager (ARM) template: ARM templates are used for declaratively defining and deploying Azure infrastructure (Infrastructure as Code), not for launching interactive management tools like Cloud Shell.
- D. Azure Command-Line Interface (CLI): This is a command-line toolset available within Azure Cloud Shell's Bash environment, not the mechanism used to initiate the Cloud Shell session.

References:

1. Microsoft Learn. (2023). Overview of Azure Cloud Shell. In "Azure Cloud Shell documentation". Section: "Accessing Cloud Shell". The document explicitly states: "The Azure portal: Select the Cloud Shell icon from the Azure portal's top navigation bar."
2. Microsoft Learn. (2023). Quickstart for Bash in Azure Cloud Shell. In "Azure Cloud Shell documentation". Section: "Start Cloud Shell". Step 1 directs the user to "Launch Cloud Shell from the top navigation of the Azure portal."
3. Microsoft Learn. (2023). What are ARM templates?. In "Azure Resource Manager documentation". Section: "Overview". This document defines ARM templates as files for declarative deployment, which is distinct from launching an interactive shell.

Question: 450

You have an Azure subscription. You need to use Azure Cloud Shell to run a deployment script. What should you use to access Cloud Shell?

- A. Azure Resource Manager (ARM)
- B. Microsoft Visual Studio
- C. a Windows command prompt
- D. a web browser

Answer:

D

Explanation:

Azure Cloud Shell is an interactive, authenticated, browser-accessible command-line shell for managing Azure resources. It provides the flexibility of choosing either a Bash or PowerShell experience. The primary methods for accessing Cloud Shell, such as through the Azure portal (portal.azure.com), the dedicated URL (shell.azure.com), or the Azure mobile app, all rely on a web browser as the user interface. This eliminates the need for local installation and configuration of command-line tools, providing a consistent environment from any location.

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Why Incorrect Options are Wrong:

- A. Azure Resource Manager (ARM): ARM is the underlying deployment and management service for Azure. You use tools like Cloud Shell to interact with the ARM API; it is not a tool to access the shell itself.
- B. Microsoft Visual Studio: Microsoft Visual Studio is an Integrated Development Environment (IDE). While it can integrate with Azure services, it is not the primary or required tool for accessing the browser-based Cloud Shell.
- C. a Windows command prompt: This is a local command-line interface on a Windows machine. While you can install the Azure CLI to run locally, this is separate from accessing the managed Azure Cloud Shell environment.

References:

1. Microsoft Learn, "What is Azure Cloud Shell?": In the "Features" section, it is explicitly stated, "Azure Cloud Shell is an interactive, authenticated, browser-accessible shell for managing Azure resources."

Source: Microsoft Learn, Azure Cloud Shell documentation,

<https://learn.microsoft.com/en-us/azure/cloud-shell/overview>, Section: "Features".

2. Microsoft Learn, AZ-900 Learning Path, "Describe tools for interacting with Azure": This official training module for the AZ-900 exam describes Cloud Shell as a "browser-based shell tool."

Source: Microsoft Learn, Module: "Describe Azure management and governance", Unit 4: "Describe tools for interacting with Azure", <https://learn.microsoft.com/en-us/training/modules/describe-azure-management-governance/4-describe-tools-interacting-azure>.

3. Microsoft Learn, "Quickstart for Bash in Azure Cloud Shell": The first step in this guide for using Cloud Shell is to launch it from the Azure portal, which is accessed through a web browser.

Source: Microsoft Learn, Azure Cloud Shell documentation, <https://learn.microsoft.com/en-us/azure/cloud-shell/quickstart>, Section: "Launch Cloud Shell".

Question: 451

HOTSPOT To answer, select the appropriate option in the answer area.

Answer Area

You have several virtual machines in an Azure subscription. You create a new subscription.

- The virtual machines can be moved to the new subscription.
- The virtual machines cannot be moved to the new subscription.
- The virtual machines can be moved to the new subscription.**
- The virtual machines can be moved to the new subscription only if they are all in the same resource group.
- The virtual machines can be moved to the new subscription only if they run Windows Server 2019 and newer.

Answer:

The virtual machines can be moved to the new subscription.

Explanation:

Azure Resource Manager enables the movement of most resources, including virtual machines, to a new subscription. This is a metadata operation that doesn't change the location of the resource. During the move, both the source and destination subscriptions are locked, preventing write and delete operations. The ability to move a virtual machine is a platform-level feature and is independent of the guest operating system or whether the source VMs reside in the same resource group. All related dependent resources must also be moved or be present in the destination.

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References:

Microsoft Learn: "Move resources to a new resource group or subscription." In the "Checklist before moving resources" section, the documentation explicitly states that virtual machines are among the resources that can be moved. It details the service limitations and requirements for a successful move operation.

Microsoft Learn: "Move operation support for resources." This document provides a comprehensive table listing which Azure resources support the move operation.

Microsoft.Compute/virtualMachines is listed as supporting the move to a new resource group and a new subscription.

Microsoft Learn: "Move Azure VMs to another subscription." This tutorial provides step-by-step instructions for moving virtual machines and their related network resources between Azure subscriptions, confirming the feasibility of the action described in the question.

Question: 452

HOTSPOT 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
Azure virtual networks deployed to the same Azure region are connected by default.	<input type="radio"/>	<input type="radio"/>
Virtual networks created in the same resource group must have unique names.	<input type="radio"/>	<input type="radio"/>
The Azure virtual network's address space must be unique within a subscription.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

No

Explanation:

Azure virtual networks deployed to the same Azure region are connected by default: No. Azure virtual networks (VNets) are fundamentally isolated from one another by design. Even when created in the same region, they cannot communicate by default. To enable communication between them, you must explicitly configure a connection using methods such as VNet peering or a VPN Gateway.

Virtual networks created in the same resource group must have unique names: Yes. The resource group acts as the scope for a virtual network's name. Therefore, any two virtual networks within the same resource group cannot share the same name. However, you can use the same VNet name in different resource groups, even within the same Azure subscription.

The Azure virtual network's address space must be unique within a subscription: No. Azure does not enforce that a VNet's IP address space be unique within a subscription. You can create multiple VNets with identical or overlapping address spaces. However, it is a crucial best practice to use non-overlapping address spaces, as overlapping ranges will prevent you from connecting those VNets together later using VNet peering.

References:

Microsoft Learn. (2024). Azure Virtual Network frequently asked questions (FAQ). Microsoft Docs. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/virtual-networks-faq>.

Under the "Connectivity" section, it clarifies that VNets are isolated and require peering to connect, stating, "Resources in different virtual networks can't communicate with each other, unless you connect the virtual networks to each other."

Microsoft Learn. (2024). Create, change, or delete a virtual network. Microsoft Docs. Retrieved from <https://learn.microsoft.com/en-us/azure/virtual-network/manage-virtual-network>.

The document's guidance on address spaces notes, "We recommend that you assign an address space that doesn't overlap with another virtual network's address space if you plan to connect the virtual networks." The term "recommend" confirms it is not a mandatory requirement.

Microsoft Learn. (2024). Naming rules and restrictions for Azure resources. Microsoft Docs.

Retrieved from <https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/resource-name-rules>.

In the table for "Microsoft.Network," the resource type virtualNetworks explicitly lists its naming scope as "Resource group."

Question: 453

HOTSPOT 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
North America is represented by a single Azure region.	<input type="radio"/>	<input type="radio"/>
Every Azure region has multiple datacenters.	<input type="radio"/>	<input type="radio"/>
Data transfers between Azure services located in different Azure regions are always free.	<input type="radio"/>	<input type="radio"/>

Answer:

North America is represented by a single Azure region. No

2. Every Azure region has multiple datacenters. Yes

3. Data transfers between Azure services located in different Azure regions are always free. No

Explanation:

North America is not represented by a single Azure region. Microsoft Azure has multiple regions in North America, including several in the United States, Canada, and Mexico. Each of these represents a distinct, geographically separate location, and a single region does not encompass the entire continent.

Every Azure region is designed with multiple datacenters. An Azure region consists of a set of datacenters deployed within a latency-defined perimeter and connected through a dedicated, low-latency network. This design ensures high availability and resilience within the region.

Data transfers between different Azure regions are not always free. Data egress (outbound data transfer) between Azure regions is subject to data transfer charges. While data ingress (inbound data transfer) to Azure is generally free, data moving out of a region, especially to a different region or the public internet, incurs a cost.

References:

Microsoft Azure Documentation, "Regions and Availability Zones": This official documentation details the structure of Azure's global infrastructure, specifying that a region is a "set of datacenters deployed within a latency-defined perimeter." It also provides a map showing numerous regions across North America, confirming that the continent is not a single region.

Microsoft Azure Pricing, "Bandwidth pricing": This page specifies the costs associated with data

transfers. It explicitly states that "Data transfer Outbound (egress) from Azure datacenters" to other regions or the internet is billed, contradicting the statement that such transfers are always free.

Question: 454

HOTSPOT 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
Azure Advisor provides personalized recommendations.	<input type="radio"/>	<input type="radio"/>
Azure Advisor can provide cost recommendations for virtual machines.	<input type="radio"/>	<input type="radio"/>
Azure Advisor can provide recommendations across multiple Azure subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

Azure Advisor acts as a personalized cloud consultant by analyzing your resource configuration and usage data to offer tailored recommendations. These recommendations are categorized into five pillars: Reliability, Security, Performance, Operational Excellence, and Cost.

For cost optimization, it specifically identifies opportunities like shutting down or resizing underutilized virtual machines. Furthermore, Azure Advisor's scope is flexible; it can provide recommendations for a single subscription, or it can be configured to aggregate recommendations across multiple subscriptions, offering a centralized view for comprehensive governance and optimization.

References:

Microsoft Learn. (2023). Introduction to Azure Advisor. "Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments."

Microsoft Learn. (2024). Azure Advisor cost recommendations. Under the section "Optimize virtual machine spend by resizing or shutting down underutilized instances," the document details how Advisor identifies VMs with low utilization and recommends shutting them down or resizing them.

Microsoft Learn. (2023). Get started with Azure Advisor. Under the section "Configure recommendations," it states, "You can use Advisor to get recommendations for multiple subscriptions at once... The recommendations view will show recommendations for all selected

subscriptions."

Question: 455

HOTSPOT 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
You can deploy Azure Resource Manager (ARM) templates by using the Azure portal.	<input type="radio"/>	<input type="radio"/>
Azure Resource Manager (ARM) templates can define infrastructure by using code.	<input type="radio"/>	<input type="radio"/>
Each Azure resource to be deployed requires a separate Azure Resource Manager (ARM) template.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

No

Explanation:

The Azure portal provides a user interface for deploying ARM templates. You can paste the JSON from a template into the portal or upload a template file to define and deploy resources directly within the web interface.

ARM templates are an implementation of Infrastructure as Code (IaC). They use a declarative JSON syntax to define the Azure resources, their configurations, and their dependencies. This allows infrastructure to be managed, versioned, and deployed programmatically, just like application code.

A primary advantage of ARM templates is their ability to define and deploy multiple resources together in a single, coordinated operation. A single template file can contain the definitions for an entire solution, such as a virtual machine, its associated storage account, virtual network, and network interface.

References:

Microsoft Learn. (2024, May 22). Deploy resources with ARM templates and Azure portal. "The portal interface can be used to deploy ARM templates. You can upload a template from your local machine or use a quickstart template." Section: Deploy template from portal.

Microsoft Learn. (2024, May 22). What are ARM templates?. "ARM templates are a form of Infrastructure as Code (IaC)... The template uses declarative syntax, which lets you state what

you intend to deploy without having to write the sequence of programming commands to create it." Section: What are ARM templates? & Why choose ARM templates?.

Microsoft Learn. (2024, August 28). Understand the structure and syntax of ARM templates. "Within the resources section of the template, you define the resources that are deployed or updated. You define an array of resources... An ARM template can contain multiple resources..." Section: Resources.

Question: 456

What provides a unified way to project and manage non-Azure resources in Azure Resource Manager (ARM)?

- A. Azure Arc
- B. Azure AD Connect
- C. Azure Migrate
- D. Azure Front Door

Answer:

A

Explanation:

Azure Arc is a service that extends Azure's management capabilities to resources located outside of Azure, such as on-premises data centers, edge locations, or other cloud providers. It achieves this by projecting these non-Azure resources as first-class citizens within Azure Resource Manager (ARM). This allows organizations to use familiar Azure services like Azure Policy, Azure Monitor, and Microsoft Defender for Cloud to govern, manage, and secure their hybrid and multi-cloud environments from a single, unified control plane. It provides a consistent management experience across diverse infrastructures.

Why Incorrect Options are Wrong:

- B. Azure AD Connect: This tool synchronizes on-premises Active Directory identities with Azure Active Directory; it does not manage infrastructure resources in ARM.
- C. Azure Migrate: This is a service for assessing and migrating on-premises workloads to Azure, not for ongoing management of non-Azure resources.
- D. Azure Front Door: This is a global content delivery network (CDN) and application delivery service, unrelated to managing hybrid infrastructure.

References:

1. Microsoft Learn. "What is Azure Arc?" Azure Arc Documentation. "Azure Arc simplifies governance and management by delivering a consistent multicloud and on-premises management platform... you can manage your entire environment, with a single pane of glass, by projecting your existing non-Azure and/or on-premises resources into Azure Resource Manager."
2. Microsoft Learn. "Azure fundamentals: Describe Azure management and governance." AZ-900: Microsoft Azure Fundamentals course. In the "Describe Azure Arc" section, it states, "Azure Arc is a set of technologies that helps you manage your cloud environment... You can manage... resources located outside of Azure... through Azure."
3. Microsoft Learn. "What is Azure AD Connect?" Azure Active Directory Documentation. "Azure

AD Connect is an on-premises Microsoft application that's designed to meet and accomplish your hybrid identity goals." This confirms its focus is on identity, not resource management.

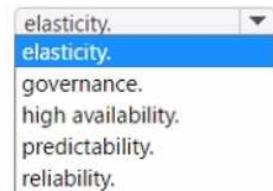
4. Microsoft Learn. "About Azure Migrate." Azure Migrate Documentation. "Azure Migrate provides a centralized hub to assess and migrate to Azure on-premises servers, infrastructure, applications, and data." This defines its purpose as a migration tool.

Question: 457

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

When a cloud app can allocate and release resources, it has



Answer:

elasticity

Explanation:

Elasticity is the core cloud computing concept that describes the ability to automatically and dynamically add (allocate) and remove (release) compute resources as needed to meet application demand. This process allows for optimal resource utilization, ensuring performance during demand spikes and cost savings during lulls. In contrast, high availability and reliability refer to a system's uptime and consistent performance, while governance pertains to the policies and controls over cloud usage. Predictability relates to consistent performance or cost, which can be a result of elasticity but is not the term for the mechanism itself.

References:

National Institute of Standards and Technology (NIST). (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). U.S. Department of Commerce. "Rapid elasticity: Capabilities can be elastically provisioned and released, in some cases automatically, to scale rapidly outward and inward commensurate with demand. To the consumer, the capabilities available for provisioning often appear to be unlimited and can be appropriated in any quantity at any time." (Page 2, Section: Essential Characteristics).

DOI: <https://doi.org/10.6028/NIST.SP.800-145>

Microsoft Azure Documentation. (2023). Microsoft Cloud Adoption Framework for Azure: Five characteristics of cloud computing. Microsoft Learn. "The fourth characteristic of cloud computing is rapid elasticity. Cloud-based services are elastic. You can expand them to add more users, or you can shrink them during slow periods. Cloud services can grow and shrink to match business needs." (Section: Five characteristics of cloud computing).

Armbrust, M., et al. (2010). A View of Cloud Computing. Communications of the ACM, 53(4), 50-58. "A fifth property, which we argue is a new requirement, is that resources be elastic: A cloud user can have as much or as little of a service as they want at any given time. For example, a user may ask for 1,000 servers for the next hour for a flash crowd, and then release them." (Page 51, Section 2.1: Defining Cloud Computing).

Question: 458

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Autoscaling is an example of

elasticity.
agility.
elasticity.
geo-distribution.
predictability.

Answer:

elasticity

Explanation:

Elasticity is the ability of a cloud computing system to automatically and dynamically provision and de-provision computing resources, such as processing power, memory, and storage, to meet changing workload demands. Autoscaling is the specific mechanism that implements this concept. It automatically adjusts the number of compute resources allocated to an application in response to traffic or utilization metrics, thus perfectly exemplifying the principle of elasticity. Agility refers to the speed of deploying resources, while geo-distribution concerns deploying assets across different geographic locations.

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References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

Page 2, Section "Essential Characteristics": The document defines "Rapid elasticity" as one of the five essential characteristics of cloud computing, stating, "Capabilities can be elastically provisioned and released, in some cases automatically, to scale rapidly outward and inward commensurate with demand." This directly describes the function of autoscaling.

Microsoft. (n.d.). Design principles for performance efficiency. Microsoft Azure Well-Architected Framework.

Section: "Design for scaling": The documentation states, "Elasticity is the ability of a system to handle increases in load without impact to the user experience... The most common way to achieve elasticity is through autoscaling."

Armbrust, M., et al. (2010). A View of Cloud Computing. Communications of the ACM, 53(4), 50-58.

Page 51, Section 2.1 "Elasticity and the Illusion of Infinite Resources": This foundational academic paper identifies elasticity as a primary advantage of cloud computing, defining it as the ability for a user to have "as much or as little of a service as they want at any given time" and notes this is often achieved automatically.

Question: 459

HOTSPOT 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
You must have internet connectivity to manage cloud services.	<input type="radio"/>	<input type="radio"/>
You must install a management app to manage cloud services.	<input type="radio"/>	<input type="radio"/>
You can manage cloud services from any modern web browser.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

Managing cloud services fundamentally requires accessing resources and management planes hosted by a cloud provider over a network. This makes internet connectivity a prerequisite.

While cloud providers may offer optional desktop or mobile management applications, they are not mandatory. The primary method for managing cloud services is through a web-based portal or console, which is accessible from any modern web browser. Additionally, services can be managed programmatically via command-line interfaces (CLIs) or APIs, none of which require a specific graphical "management app."

References:

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology.

Page 2, Section "Essential Characteristics": The document lists "Broad Network Access" as an essential characteristic of cloud computing. It states, "Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (e.g., mobile phones, tablets, laptops, and workstations)." This supports the necessity of network (internet) connectivity and access via standard clients like web browsers.

Microsoft Azure Documentation. (n.d.). What is the Azure portal?

The documentation explicitly describes the Azure portal as a "web-based, unified console," confirming that it is accessed through a web browser, not a mandatory installed application. It

provides an alternative to command-line tools for managing Azure resources.

Microsoft Azure Documentation. (n.d.). Azure management options.

This documentation outlines multiple ways to manage Azure, including the Azure portal (web-based), Azure PowerShell (command-line), Azure CLI (command-line), and the Azure mobile app. The existence of multiple options, especially the primary web-based portal, confirms that a dedicated installed management app is not a requirement.

Question: 460

In the software as a service (SaaS) cloud service, which responsibility is shared between Microsoft and the customer?

- A. identity and directory infrastructure management
- B. application management
- C. information and data management
- D. operating system updates

Answer:

C

Explanation:

In the Software as a Service (SaaS) model, the cloud provider (Microsoft) is responsible for managing the application and the entire underlying infrastructure, including servers, storage, and networking. However, the customer is always responsible for the data they create and store within the service. The customer controls and manages their data and user access, while Microsoft is responsible for the security of the service that hosts the data. This creates a shared responsibility for the overall management and protection of information and data.

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Why Incorrect Options are Wrong:

- A. While identity management is shared, the customer does not manage the directory infrastructure itself in a SaaS model; they manage the user accounts and access permissions within it.
- B. Application management, including updates and maintenance, is the sole responsibility of the cloud provider (Microsoft) in a SaaS model.
- D. Operating system updates are part of the infrastructure stack managed entirely by the cloud provider (Microsoft) in the SaaS model.

References:

1. Microsoft Learn. (2023). Shared responsibility in the cloud. Azure Security Fundamentals.
Reference: In the section "Shared responsibility model," the diagram and accompanying text clarify the division of responsibilities. For SaaS, it states, "For all cloud deployment types, you own your data and identities. You are responsible for protecting the security of your data and identities...". This establishes the customer's role in data management, which, combined with Microsoft's role in securing the platform, makes it a shared responsibility.
2. Microsoft Learn. (2023). Describe the shared responsibility model - AZ-900. Cloud Concepts.
Reference: In the learning path for AZ-900, this module explicitly states for the SaaS model: "You're responsible for your data that you put into the service, and for managing access." This

confirms the customer's active role in data management, which is a core component of the shared model.

Question: 461

HOTSPOT 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
You can have two Azure Storage accounts that have the same name in the same Azure subscription.	<input type="radio"/>	<input type="radio"/>
You can have two Azure Storage accounts that have the same name in different Azure regions.	<input type="radio"/>	<input type="radio"/>
You can have two Azure Storage accounts that have the same name in two different Azure subscriptions.	<input type="radio"/>	<input type="radio"/>

Answer:

No

No

No

Explanation:

The name of an Azure Storage account must be globally unique across the entire Azure platform. This is because the account name is used as part of the public DNS endpoint to access the data objects within it (e.g., <https://accountname.blob.core.windows.net>). To avoid DNS conflicts and ensure that every storage account has a unique, resolvable address, no two accounts can share the same name, regardless of the subscription, region, or tenant they belong to.

References:

Microsoft Azure Documentation: In the official guide for creating a storage account, under the "Basics" tab description for the "Storage account name" field, the rule is explicitly stated.

Reference: Microsoft Learn. (2024). Create a storage account. Section: Project details. "Your storage account name must be unique within Azure. No two storage accounts can have the same name."

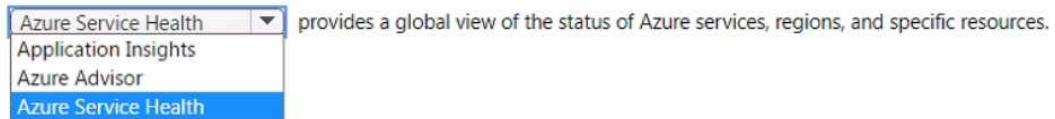
Microsoft Azure Documentation: The naming rules for various Azure resources confirm the global uniqueness requirement for storage accounts.

Reference: Microsoft Learn. (2024). Naming rules and restrictions for Azure resources. Section: Storage. "Storage account names must be unique across all of Azure."

Question: 462

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Azure Service Health

Explanation:

Azure Service Health is the correct service as it provides a comprehensive view of the health of the Azure environment. It includes the Azure Status page, which offers a global overview of the health of all Azure services across all regions. Additionally, it provides personalized alerts and guidance when Azure service issues, such as outages or planned maintenance, affect your specific resources. This combination of a global and personalized view is unique to Azure Service Health.

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- Application Insights is an Application Performance Management (APM) service for monitoring the performance and usage of your live applications, not the underlying Azure platform.
- Azure Advisor acts as a personalized cloud consultant, providing recommendations to optimize your Azure deployments for cost, security, performance, and reliability, rather than reporting on their current operational status.

References:

Microsoft Learn, Azure Service Health documentation. (n.d.). What is Azure Service Health? Microsoft. Retrieved from the official Microsoft Azure documentation. The documentation states, "Azure Service Health notifies you about Azure service incidents and planned maintenance so you can take action to mitigate downtime... It provides the Azure status page, a global view of the health of Azure services."

Microsoft Learn, Azure Monitor documentation. (n.d.). What is Application Insights? Microsoft. Retrieved from the official Microsoft Azure documentation. This source clarifies, "Application Insights, a feature of Azure Monitor, is an extensible Application Performance Management (APM) service for developers and DevOps professionals. Use it to monitor your live applications."

Microsoft Learn, Azure Advisor documentation. (n.d.). Introduction to Azure Advisor. Microsoft. Retrieved from the official Microsoft Azure documentation. According to this source, "Azure

Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments."

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Question: 463

Your company has an Azure subscription and three business units. You plan to deploy new resources for each business unit. You need to ensure that the new resources are deployed by using a repeatable and reliable method that applies the same configurations to each resource. What should you use?

- A. Azure Arc
- B. a resource group
- C. Azure Resource Manager (ARM) templates
- D. Azure Policy

Answer:

C

Explanation:

Azure Resource Manager (ARM) templates are the native Infrastructure as Code (IaC) solution for Azure. They allow you to define the resources to deploy, their configurations, and dependencies in a declarative JSON or Bicep file. Using a template ensures that every deployment is identical, reliable, and repeatable. This directly addresses the need to apply the same configurations to resources for each business unit in a consistent manner. The template acts as a blueprint that can be executed multiple times to create the same environment, which is the core requirement of the scenario.

Why Incorrect Options are Wrong:

- A. Azure Arc: Azure Arc is a service that extends Azure management capabilities to hybrid and multi-cloud environments; it is not a tool for deploying Azure resources.
- B. a resource group: A resource group is a logical container for Azure resources. While resources are deployed into a resource group, the group itself is not the deployment method that ensures consistency.
- D. Azure Policy: Azure Policy is a governance service used to enforce rules and standards on resources to ensure compliance. It does not deploy resources but rather audits or enforces their configuration.

References:

1. Microsoft Documentation, "What are ARM templates?":

Reference: Under the section "Benefits of using templates," the documentation states, "Repeatable results: Repeatedly deploy your infrastructure throughout the development lifecycle and have confidence your resources are deployed in a consistent manner... Infrastructure as

Code: You can express the infrastructure for your app through code." This directly supports the use of ARM templates for repeatable and reliable deployments.

Source: Microsoft Learn,

docs.microsoft.com/en-us/azure/azure-resource-manager/templates/overview, Section: "Benefits of using templates".

2. Microsoft Documentation, "What is Azure Policy?":

Reference: "Azure Policy is a service in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant with your corporate standards and service level agreements." This clarifies that Policy is for governance, not deployment.

Source: Microsoft Learn, docs.microsoft.com/en-us/azure/governance/policy/overview, Section: "Overview".

3. Microsoft Documentation, "Azure Resource Manager overview":

Reference: "Resource group - A container that holds related resources for an Azure solution. The resource group includes those resources that you want to manage as a group." This defines a resource group as a container, not a deployment mechanism.

Source: Microsoft Learn,

docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview, Section: "Terminology".

4. Microsoft Documentation, "What is Azure Arc?":

Reference: "Azure Arc simplifies governance and management by delivering a consistent multi-cloud and on-premises management platform." This confirms Azure Arc's purpose is for managing external infrastructure, not deploying resources within Azure.

Source: Microsoft Learn, docs.microsoft.com/en-us/azure/azure-arc/overview, Section: "What does Azure Arc deliver?".

Question: 464

You plan to reduce ongoing Azure expenditures. You need to identify which factors affect the costs of a resource. Which three factors should you identify? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. the Azure region
- B. the type of processed data
- C. the volume of inbound data
- D. the volume of outbound data
- E. the service tier

Answer:

A, D, E

Explanation:

Azure resource costs are determined by several key factors that users can manage to control expenditures. The Azure region is a primary factor, as pricing for the same service can vary based on the geographic location of the data center. The volume of outbound data (egress) is another significant cost, as data transfers out of Azure data centers are typically metered and charged. Finally, the service tier (e.g., Basic, Standard, Premium) directly impacts cost, as higher tiers offer more performance, features, and availability at a higher price point. These three elements—location, data egress, and performance level—are fundamental to Azure's pricing model.

Why Incorrect Options are Wrong:

- B. the type of processed data: Azure pricing is generally based on the quantity (volume) and processing time of data, not its specific type (e.g., text vs. video).
- C. the volume of inbound data: Data transfer into Azure data centers (inbound/ingress) is free for most services, so it does not typically affect resource costs.

References:

1. Microsoft Learn, "Describe factors that can affect costs in Azure": This official AZ-900 learning path module identifies core factors affecting cost. It explicitly lists Location (Azure region) and Bandwidth (data egress) as key determinants. It also covers how the configuration of a service, which includes its service tier, affects the price.

Reference: Microsoft Learn, AZ-900: Describe Azure cost management and Service Level Agreements, Module: "Describe factors that can affect costs in Azure", Units: "What are the factors that affect costs?" and "What is the Pricing calculator?".

2. Microsoft Azure Documentation, "Bandwidth Pricing Details": This official pricing page confirms

that inbound data transfers are free, while outbound data transfers are charged based on volume. Reference: [azure.microsoft.com](https://azure.microsoft.com/en-us/pricing/details/bandwidth/), Pricing, "Bandwidth Pricing Details", Section: "Data Transfer". The page states, "Inbound data transfers (i.e., data going into Azure datacenters) are free." and provides pricing tables for outbound transfers.

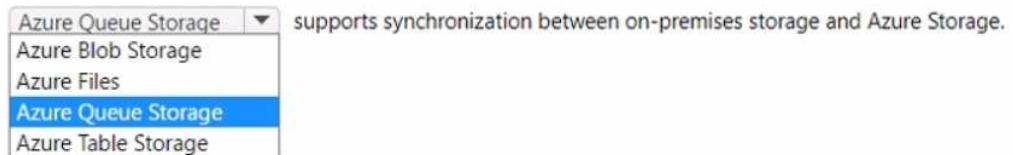
3. Microsoft Azure Documentation, "Pricing Calculator": The design of the official Azure Pricing Calculator demonstrates the core cost factors. When estimating costs for any resource, a user must select the Region and the Tier (or instance size/type), which directly confirms these as primary cost inputs.

Reference: [azure.microsoft.com](https://azure.microsoft.com/en-us/pricing/calculator/), "Pricing calculator". The user interface for configuring any service, such as Virtual Machines or SQL Database, requires specifying a Region and a Pricing Tier.

Question: 465

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Azure Files

Explanation:

Azure Files is the correct service because it offers a feature called Azure File Sync. This feature is specifically designed to synchronize file shares between on-premises Windows Servers and cloud-based Azure file shares. Azure File Sync centralizes your files in the cloud while maintaining a local cache on-premises for fast access, performance, and compatibility. Other services like Blob, Queue, and Table storage serve different purposes such as object storage, messaging, and NoSQL data storage, and they do not offer a native file synchronization capability in the way Azure Files does with Azure File Sync.

References:

Microsoft Azure Documentation, "What is Azure File Sync?": "Azure File Sync allows you to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms Windows Server into a quick cache of your Azure file share."

Reference: Microsoft Corporation. (n.d.). What is Azure File Sync?. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/storage/file-sync/file-sync-introduction>

Microsoft Azure Documentation, "What is Azure Files?": "Azure Files offers fully managed file shares in the cloud that are accessible via the industry standard Server Message Block (SMB) protocol, Network File System (NFS) protocol, and Azure Files REST API... An Azure file share can be mounted concurrently by cloud or on-premises deployments."

Reference: Microsoft Corporation. (n.d.). What is Azure Files?. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/storage/files/storage-files-introduction>

Cornell University, ECE 5745: Computer-Aided Design and Verification Course Material: In discussing cloud storage options, materials often distinguish between block, file, and object storage. The description of file storage services like Azure Files highlights their use in hybrid scenarios and compatibility with standard file system protocols (SMB/NFS), which is a prerequisite for synchronization with on-premises servers.

Reference: Batten, C. (2021). Lecture 14: Cloud Computing. Cornell University, School of Electrical and Computer Engineering. Slide 28, "Azure Storage Services".

Question: 466

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

When you need to delegate permissions to several Azure virtual machines simultaneously,
you must deploy the Azure virtual machines

to the same resource group.

to the same Azure region.

by using the same Azure Resource Manager template.

to the same resource group.

to the same availability zone.

Answer:

to the same resource group.

Explanation:

In Azure, a resource group is a logical container for managing related resources as a single entity. Role-Based Access Control (RBAC) permissions are applied at different scopes, and the resource group is a primary scope. When you assign a role (e.g., Virtual Machine Contributor) to a user or group at the resource group level, those permissions are automatically inherited by all resources within that group, including all the virtual machines. This is the standard and most efficient method for delegating permissions to multiple resources simultaneously. The other options are incorrect as regions and availability zones are for high availability and location, not permission scoping, and ARM templates are for deployment.

References:

Microsoft Learn Azure Docs: "What is Azure role-based access control (Azure RBAC)?" - In the section "Scope," the documentation explicitly lists Resource groups as a level at which access rights can be applied. It states, "Azure provides four levels of scope: management groups, subscriptions, resource groups, and resources. Scope is structured in a parent-child relationship... Permissions are inherited down to child scopes." This confirms that assigning permissions at the resource group level applies them to all resources within it.

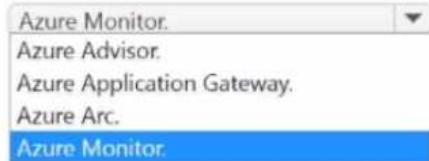
Microsoft Learn Azure Docs: "Azure Resource Manager overview" - In the section "Resource groups," it is stated that "A resource group is a container for resources that share a common lifecycle, permissions, and policies." This directly supports the use of resource groups as a boundary for permission delegation.

Question: 467

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

Application Insights is a feature of



Answer:

Azure Monitor

Explanation:

Application Insights is an extensible Application Performance Management (APM) service that is a core feature of Azure Monitor. It is designed for developers and DevOps professionals to monitor live applications, automatically detect performance anomalies, and diagnose issues. It collects telemetry data on application performance, failures, requests, and user activity, providing powerful analytics tools to help improve application performance and usability. The other options are incorrect as they serve different purposes: Azure Advisor provides optimization recommendations, Azure Application Gateway is a web traffic load balancer, and Azure Arc extends Azure management to hybrid environments.

References:

Microsoft Azure Documentation, "What is Application Insights?".

Reference: In the "Overview" section, the documentation explicitly states, "Application Insights, a feature of Azure Monitor, is an extensible Application Performance Management (APM) service for developers and DevOps professionals."

Microsoft Azure Documentation, "Azure Monitor overview".

Reference: In the section titled "What does Monitor monitor?", under the "Data sources" subsection, "Applications" are listed as a source. The description specifies, "Performance and functionality of the code you have written, regardless of its platform. Monitored by Application Insights." This confirms Application Insights is the component of Azure Monitor responsible for application-level data.

Question: 468

DRAG DROP Match the Azure compute services to the appropriate descriptions. To answer, drag the appropriate compute service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Compute services	Answer Area	
Azure App Service		Provides software emulation of a physical computer.
Azure Container Instances		Provides operating system virtualization.
Azure Functions		
Azure Virtual Machine Scale Sets		

Answer:

Provides software emulation of a physical computer.

Azure Virtual Machine Scale Sets

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Provides operating system virtualization.

Azure Container Instances

Explanation:

Azure Virtual Machine Scale Sets allows you to deploy and manage a large number of identical virtual machines (VMs). A virtual machine is a software-based emulation of an entire physical computer, including its CPU, memory, storage, and networking components. This is also known as hardware virtualization.

Azure Container Instances (ACI) is a service that runs Docker containers. Containers provide operating system virtualization by bundling an application with its dependencies into an isolated user-space instance. Multiple containers run on a single host machine, sharing the host's operating system kernel but remaining isolated from each other. This is a more lightweight form of virtualization compared to VMs.

References:

Microsoft Learn, Azure Documentation. "What are virtual machine scale sets?" This document states, "Azure virtual machine scale sets let you create and manage a group of load balanced VMs." The underlying unit is the Virtual Machine (VM), which provides hardware emulation.

Microsoft Learn, Azure Documentation. "What is Azure Container Instances?" This document explains that ACI allows you to "run Docker containers on-demand in a managed, serverless Azure environment."

Microsoft Learn, Azure Documentation. "Choose an Azure compute service." In the section comparing services, it clarifies that Virtual Machines provide Infrastructure-as-a-Service (IaaS) to create "a virtualized server." It describes containers as "OS virtualization" that do not virtualize the underlying hardware, making them more lightweight than a VM.

Buyya, R., Sotomayor, B., & Broberg, J. (2013). Cloud Computing: Principles and Paradigms. Wiley. Chapter 3, "Virtualization," discusses the two primary types of virtualization. It describes hardware virtualization (used by VMs) as creating a virtual hardware platform and OS-level virtualization (used by containers) as isolating processes on a shared kernel.

Question: 469

HOTSPOT 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
Azure Advisor supports alerts.	<input type="radio"/>	<input type="radio"/>
Azure Advisor recommendations can be filtered by Administrative unit.	<input type="radio"/>	<input type="radio"/>
Azure Advisor provides recommendations on improving the performance of resources.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

No

Yes

Explanation:

Azure Advisor supports alerts: True. You can [configure alerts](#) in Azure Advisor to be notified when new recommendations become available for your resources. This helps you stay on top of potential issues without having to manually check the Advisor dashboard. These alerts can be configured to trigger actions like sending emails, SMS messages, or initiating an Azure Function.

Azure Advisor recommendations can be filtered by Administrative unit: False. Azure Advisor recommendations can be filtered by Subscription, Resource group, Resource type, Impact, and Recommendation type. Administrative units are a Microsoft Entra ID (formerly Azure AD) feature for delegating administrative permissions and are not a filtering option within Azure Advisor for resource recommendations.

Azure Advisor provides recommendations on improving the performance of resources: True. Performance is one of the five core recommendation categories in Azure Advisor, alongside Reliability, Security, Cost, and Operational Excellence. Advisor analyzes your resource configuration and usage telemetry to provide recommendations that can improve the speed and responsiveness of your applications.

References:

Microsoft Docs, Azure Advisor. "Get started with Azure Advisor". This document explicitly lists the five categories of recommendations: "Advisor provides recommendations for Reliability, Security, Performance, Operational Excellence, and Cost." It also details how to set up alerts.

Microsoft Docs, Azure Advisor. "Configure alerts for new recommendations in Azure Advisor". This page provides a step-by-step guide stating, "You can set up alerts to get notified about new recommendations from Azure Advisor."

Microsoft Docs, Azure Advisor. "View Advisor recommendations". This article details the filtering capabilities available in the Azure Advisor portal. It lists the available filters as Subscription, Resource Group, Resource Type, and others, with no mention of Administrative unit.

Question: 470

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Azure Virtual Desktop

Explanation:

Azure Virtual Desktop (AVD) is the correct service that matches the description. It is a comprehensive desktop and application virtualization service that runs on the cloud. AVD allows users to access a cloud-hosted, full Windows experience, including their desktops and applications, from any device and location. The other options serve different purposes: Availability Sets provide high availability for virtual machines, Spot Virtual Machines offer discounted compute for interruptible workloads, and Virtual Machine Scale Sets enable autoscaling of identical VMs for applications.

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References:

Microsoft Azure Documentation:

Azure Virtual Desktop: "Azure Virtual Desktop is a desktop and app virtualization service that runs on the cloud. It enables you to access your desktop and applications from virtually anywhere."

Source: Microsoft Learn, "What is Azure Virtual Desktop?," Overview section.

Availability Sets: "An availability set is a logical grouping of VMs that allows Azure to understand how your application is built to provide for redundancy and availability."

Source: Microsoft Learn, "Availability sets overview," What is an availability set? section.

Azure Spot Virtual Machines: "Using Azure Spot Virtual Machines allows you to take advantage of our unused capacity at a significant cost savings... Spot Virtual Machines are ideal for workloads that can be interrupted..."

Source: Microsoft Learn, "Use Azure Spot Virtual Machines," Overview section.

Azure Virtual Machine Scale Sets: "Azure Virtual Machine Scale Sets let you create and manage a group of load balanced VMs. The number of VM instances can automatically increase or decrease in response to demand or a defined schedule."

Source: Microsoft Learn, "What are Virtual Machine Scale Sets?," Overview section.

Question: 471

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

An Availability Zone in Azure has physically separate locations

- within a single Azure region.
- across two continents.
- within a single Azure region.**
- within multiple Azure regions.
- within a single Azure datacenter.

Answer:

within a single Azure region.

Explanation:

An Azure Availability Zone is a high-availability offering that protects applications and data from datacenter failures. Availability Zones are unique, physically separate locations equipped with independent power, cooling, and networking, all located within a single Azure region. A region is composed of one or more Availability Zones, allowing for resilience against localized failures. Spreading resources across multiple regions constitutes a different disaster recovery strategy, often involving region pairs, not Availability Zones.

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References:

Microsoft Azure Documentation, "Azure regions and Availability Zones." Microsoft Learn. Accessed September 12, 2025.

Reference Specifics: In the "Terminology" section, it explicitly states: "An availability zone is a high-availability offering that protects your applications and data from datacenter failures.

Availability zones are unique physical locations within an Azure region."

Microsoft Azure Documentation, "Build solutions for high availability using Availability Zones." Microsoft Learn. Accessed September 12, 2025.

Reference Specifics: The overview section clarifies the relationship: "Availability Zones are physically and logically separated datacenters with their own independent power source, network, and cooling. They're connected by an extremely low-latency network. All zone-enabled regions have a minimum of three zones." This confirms they are separate entities but contained within the boundary of a single region.

Question: 472

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area

The Cool access tier is optimized

for data that is accessed infrequently and stored for at least 30 days.

for data that is accessed infrequently and stored for at least 30 days.

for data that is accessed rarely, is stored for at least 180 days, and has flexible latency requirements.

for storing data that is accessed frequently.

Answer:

for data that is accessed infrequently and stored for at least 30 days.

Explanation:

The Cool access tier in Azure Blob Storage is an online tier specifically optimized for storing data that is infrequently accessed or modified but needs to be immediately available when requested. It provides a cost-effective solution by offering lower storage costs than the Hot tier, but with higher access costs. This tier is ideal for data like short-term backups and older datasets that are not regularly used but must be retained for at least 30 days. The other options describe the Archive tier (rarely accessed, 180-day minimum) and the Hot tier (frequently accessed).

References:

Microsoft Azure Documentation: "Access tiers for Azure Blob Storage - hot, cool, cold, and archive." Microsoft Learn.

Section: "Cool access tier"

Content: "The cool access tier is an online tier optimized for storing data that is infrequently accessed or modified. Data in the cool access tier should be stored for a minimum of 30 days.

The cool access tier has lower storage costs and higher access costs compared to the hot tier."

Microsoft Azure Documentation: "Hot, Cool, and Archive access tiers for blob data." Microsoft Learn.

Section: "Summary of access tier options"

Content: This section provides a comparison table detailing the recommended usage for each tier. For the Cool tier, it specifies "Infrequently accessed data" for usage and "At least 30 days" for minimum storage duration.

Question: 473

DRAG DROP Match the Azure services benefits to the correct descriptions. Instructions: To answer, drag the appropriate benefit from the column on the left to its description on the right. Each benefit may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Azure Services Benefit	Answer Area
Disaster recovery	
Low latency	
Fault tolerance	
Dynamic scalability	

Answer:

Fault tolerance

A cloud service that remains available after a failure occurs.

Disaster recovery

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A cloud service that can be recovered after a failure occurs.

Dynamic scalability

A cloud service that performs quickly when demand increases.

Low latency

A cloud service that can be accessed quickly from the Internet.

Explanation:

Fault tolerance is the ability of a system to continue operating without interruption even when one or more of its components fail. It is achieved through redundancy, ensuring that there is no single point of failure and the service remains available.

Disaster recovery involves the policies and procedures for restoring operations and data after a major outage or natural disaster. It focuses on the ability to recover the service after it has failed, rather than preventing the failure itself.

Dynamic scalability (also known as elasticity) is the capability to automatically add or remove resources as needed to meet changing demand. This ensures the service performs quickly and efficiently when demand increases.

Low latency refers to minimizing the delay in data transfer. In cloud computing, this is often achieved by distributing resources globally, placing them closer to users so that the service can be accessed quickly over the internet.

References:

Microsoft Learn, Azure Well-Architected Framework, "Principles of reliability": This document distinguishes between high availability (fault tolerance) and disaster recovery. It states, "High availability (HA) is the ability of the application to continue running in a healthy state... Disaster recovery (DR) is the ability to recover from rare but major incidents." This supports the distinction between "remaining available" (fault tolerance) and "being recovered" (disaster recovery).

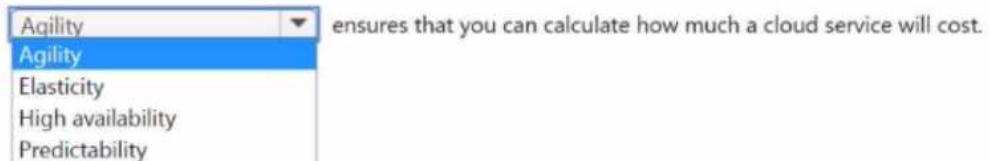
Microsoft Learn, Azure Well-Architected Framework, "Performance efficiency pillar": This source describes scalability as a key aspect of performance efficiency. It states, "Scalability is the ability of a system to handle an increased load. Applications can scale in two ways: vertically (scaling up)...and horizontally (scaling out)." Dynamic scalability ensures performance is maintained as demand changes.

Microsoft Learn, "What is latency?": This document defines latency as "the delay from when a data packet is sent to when it's received" and explains how a global network of datacenters helps reduce it, allowing for quicker access.

Question: 474

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Predictability

Explanation:

Predictability in cloud computing refers to the ability to forecast costs and performance. Cloud providers offer transparent pricing models and tools, such as pricing calculators and cost management dashboards. These tools allow organizations to estimate their spending based on their expected consumption of services, which is crucial for budgeting and financial planning.

The other options are incorrect for the following reasons:

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- Agility is the ability to rapidly develop, test, and deploy applications.
- Elasticity is the capacity to automatically scale resources up or down to meet demand.
- High availability ensures that systems and services have minimal downtime and remain operational.

References:

Microsoft Learn. In the "Describe benefits of cloud computing" module, predictability is defined as a core benefit. "Predictability can be used to describe both cost and performance... With the cloud, you can track your resource usage in real time, monitor resources to ensure you're using them in the most efficient way, and apply data analytics to find patterns and trends that help in planning."

Source: Microsoft Learn, Module: "Describe the benefits of using cloud services," Part of learning path: "Microsoft Azure Fundamentals: Describe cloud concepts."

Mell, P., & Grance, T. (2011). The NIST Definition of Cloud Computing (Special Publication 800-145). National Institute of Standards and Technology. The concept of "Measured Service" described by NIST is the foundation for predictability. It states, "Cloud systems automatically control and optimize resource use by leveraging a metering capability... Resource usage can be

monitored, controlled, and reported, providing transparency for both the provider and consumer of the utilized service." This metering and reporting are what enable cost calculation and predictability.

DOI: <https://doi.org/10.6028/NIST.SP.800-145> (Section 2: "Essential Characteristics")

Question: 475

Which cloud computing benefit provides continuous user access to a cloud-based application with minimal downtime?

- A. high availability
- B. elasticity
- C. scalability
- D. agility

Answer:

A

Explanation:

High availability is a core cloud computing benefit that focuses on ensuring services and applications remain operational and accessible with minimal interruption or downtime. It is achieved through fault-tolerant designs, such as redundancy across multiple physical locations or servers. When a component fails, a redundant component takes over seamlessly, providing continuous access for users. This directly addresses the requirement of maintaining access with minimal downtime, which is the central point of the question.

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Why Incorrect Options are Wrong:

- B. elasticity: This refers to the ability to automatically scale resources up or down to match demand, which is about resource optimization, not fault tolerance.
- C. scalability: This is the ability to add or remove resources to handle changes in load. While related to performance, it does not inherently guarantee uptime during a failure.
- D. agility: This describes the speed and ease with which new resources can be provisioned and deployed, enabling rapid response to business changes, not ensuring continuous operation.

References:

1. Microsoft Learn, "Describe the benefits of using cloud services," AZ-900: Describe cloud concepts.

Section: "What are the benefits of cloud computing?"

Content: Defines High availability as "The ability to keep services up and running for long periods of time, with very little downtime." It defines elasticity as "The ability to automatically or dynamically increase or decrease resources as needed." This source clearly distinguishes between the two concepts, aligning with the correct answer.

2. Microsoft Azure Well-Architected Framework, "Overview of the reliability pillar."

Section: "Introduction" and "Design principles."

Content: This document states that a key goal of reliability is to provide high availability for your

application. It explains that reliability is achieved by building resiliency and availability into the application's architecture to ensure it remains functional and accessible during both predictable and unpredictable failures. This directly supports the concept of high availability ensuring continuous access.

Question: 476

HOTSPOT 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
AzCopy is a command-line utility used to copy blobs or files to or from a storage account.	<input type="radio"/>	<input type="radio"/>
Azure Storage Explorer is a cloud-hosted migration service used to transfer large amounts of data.	<input type="radio"/>	<input type="radio"/>
Azure File Sync syncs files and folders between Azure Files and Windows file servers.	<input type="radio"/>	<input type="radio"/>

Answer:

Statement 1: Yes

Statement 2: No

Statement 3: Yes

Explanation:

AzCopy: This statement is correct. AzCopy is a command-line utility specifically designed for efficiently copying data (blobs and files) to, from, and between Azure Storage accounts. It is optimized for high-performance, resumable, and parallel data transfers.

Azure Storage Explorer: This statement is incorrect. Azure Storage Explorer is a standalone client application, not a cloud-hosted service. It provides a graphical user interface (GUI) to manage Azure Storage resources from Windows, macOS, and Linux desktops. While it can be used to transfer data, it is primarily a management tool, not a large-scale migration service like Azure Migrate or Azure Data Box.

Azure File Sync: This statement is correct. Azure File Sync's core function is to centralize file shares in Azure Files while keeping an on-premises Windows Server synchronized as a local cache. This allows for multi-site synchronization and provides local access performance with cloud-based tiering.

References:

AzCopy: Microsoft Corporation. (n.d.). Get started with AzCopy. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-v10>.

Supporting Section: In the "What is AzCopy?" section, the documentation states, "AzCopy is a command-line utility that you can use to copy blobs or files to or from a storage account."

Azure Storage Explorer: Microsoft Corporation. (n.d.). What is Azure Storage Explorer?. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/vs-azure-tools-storage-manage-with-storage-explorer?tabs=windows>.

Supporting Section: The introduction clearly states, "Azure Storage Explorer is a standalone app that makes it easy to work with Azure Storage data on Windows, macOS, and Linux." This confirms it is a client-side application, not a cloud-hosted service.

Azure File Sync: Microsoft Corporation. (n.d.). Planning for an Azure File Sync deployment.

Microsoft Learn. Retrieved from

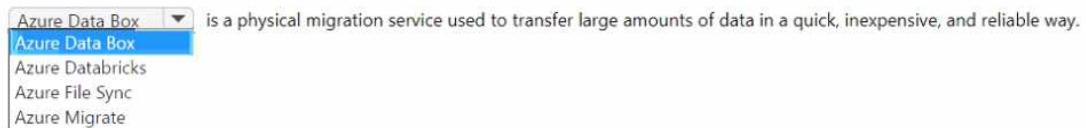
<https://learn.microsoft.com/en-us/azure/storage/file-sync/file-sync-planning>.

Supporting Section: The "What is Azure File Sync?" section explains, "Azure File Sync allows you to centralize your organization's file shares in Azure Files without giving up the flexibility, performance, and compatibility of an on-premises file server. It does this by transforming Windows Server into a quick cache of your Azure file share."

Question: 477

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Azure Data Box

Explanation:

Azure Data Box is a service that provides a physical, ruggedized appliance for securely transferring large amounts of data to Azure when network-based transfers are too slow, unreliable, or expensive. Customers order the device, load their data onto it offline, and then ship it back to an Azure datacenter where the data is uploaded. Azure Databricks is an analytics platform, Azure File Sync is for synchronizing file shares, and Azure Migrate is a centralized hub for managing migrations, but not the physical transfer device itself.

References:

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Microsoft. (2024). What is Azure Data Box? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/data-box/data-box-overview>.

Reference Point: The "What is Azure Data Box?" section explicitly states, "The Microsoft Azure Data Box cloud solution lets you send terabytes of data into and out of Azure in a quick, inexpensive, and reliable way. The secure data transfer is accelerated by shipping you a proprietary Data Box storage device."

Microsoft. (2024). What is Azure Databricks? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/databricks/introduction/what-is-azure-databricks>.

Reference Point: The overview describes Azure Databricks as a "unified, open analytics platform for building, deploying, sharing, and maintaining enterprise-grade data, analytics, and AI solutions at scale." This confirms it is an analytics service, not a data transfer service.

Microsoft. (2023). What is Azure File Sync? Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/storage/file-sync/file-sync-introduction>.

Reference Point: The introduction explains, "Azure File Sync allows you to centralize your organization's file shares in Azure Files without giving up the flexibility, performance, and compatibility of an on-premises file server." This defines its role as a synchronization service.

Microsoft. (2024). About Azure Migrate. Microsoft Learn. Retrieved from <https://learn.microsoft.com/en-us/azure/migrate/migrate-services-overview>.

Reference Point: The documentation describes Azure Migrate as "a centralized hub to assess

and migrate on-premises servers, infrastructure, applications, and data to Azure." It is a management and assessment service, which may use tools like Data Box for the actual transfer, but it is not the physical transfer service itself.

Question: 478

What should a desktop application use to interact with Azure and manage resources?

- A. Azure Resource Manager (ARM) templates
- B. APIs
- C. Azure Cloud Shell
- D. Azure Command-Line Interface (CLI)

Answer:

B

Explanation:

A desktop application interacts with Azure programmatically to manage resources. The fundamental mechanism for this is the Application Programming Interface (API). Azure provides a set of REST APIs, managed through the Azure Resource Manager (ARM), that allow applications to perform create, read, update, and delete (CRUD) operations on any Azure resource. Developers typically use Azure Software Development Kits (SDKs) for various programming languages, which are essentially libraries that simplify the process of making calls to these underlying REST APIs from within an application's code.

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Why Incorrect Options are Wrong:

- A. Azure Resource Manager (ARM) templates: These are declarative JSON files used for deploying infrastructure, not for ongoing, interactive management from a custom application.
- C. Azure Cloud Shell: This is an interactive, browser-based shell environment designed for human administrators, not a programmatic interface for an application.
- D. Azure Command-Line Interface (CLI): This is a command-line tool for direct use by administrators or in scripts, not the primary method for a desktop application to integrate with Azure.

References:

1. Microsoft Learn, "What is Azure Resource Manager?": Under the section "The benefits of using Resource Manager," the documentation states, "Resource Manager provides several ways to access the service: Azure portal, Azure PowerShell, Azure CLI, REST clients, Azure SDKs." A desktop application would use REST clients or the Azure SDKs, both of which are methods of interacting with the API.
2. Microsoft Learn, "Azure REST API reference": The overview clearly states, "The Azure REST APIs are a set of HTTP-based service endpoints that expose the functionality of various Azure services. By programming against these endpoints, developers can build apps that integrate with

Azure." This directly addresses how an application interacts with Azure.

3. Microsoft Learn, "What are the Azure SDKs?": This document explains, "The Azure SDKs are collections of libraries built to make it easier to use Azure services from your language of choice. They are designed to simplify interactions between your application and Azure resources." This confirms that applications use SDKs, which are wrappers for the APIs.

Question: 479

DRAG DROP You need to identify a customer's level of shared responsibility based on the cloud service model. In which order should you list each model from most customer responsibility (top) to least customer responsibility (bottom)? To answer, move all models from the list of models to the answer area and arrange them in the correct order.

Cloud Service Model	Answer Area
Infrastructure as a service (IaaS)	
platform as a service (PaaS)	
software as a service (SaaS)	

() ()

Answer:

Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS)

Explanation:

The order of cloud service models from most customer responsibility to least customer responsibility is IaaS, PaaS, and SaaS. In IaaS, the customer manages the operating system, applications, and data, while the provider is responsible for the underlying infrastructure like networking and servers. PaaS reduces this burden by having the provider manage the operating system and middleware, leaving the customer to handle only the application and data. With SaaS, the provider manages everything from the application to the infrastructure, so the customer's responsibility is limited to using the software and managing their data.

References:

Peter Mell and Timothy Grance, "The NIST Definition of Cloud Computing," National Institute of Standards and Technology (NIST) Special Publication 800-145, September 2011, Section 2.1, page 3. Describes the three service models and their fundamental characteristics, including the allocation of management responsibilities.

Amazon Web Services, "AWS Shared Responsibility Model," available in official documentation. Explains that in an IaaS model (like EC2), the customer is responsible for guest OS, applications, and security patches, aligning with the "most responsibility" concept.

Microsoft Azure, "Cloud computing models," available in Azure documentation. Provides a clear comparison table showing the division of responsibility for different components (networking, OS, applications, etc.) across IaaS, PaaS, and SaaS, demonstrating the decreasing level of customer management from IaaS to SaaS.

Question: 480

HOTSPOT 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
You can only manage cloud services from Windows devices.	<input type="radio"/>	<input type="radio"/>
You can manage cloud services from the command line.	<input type="radio"/>	<input type="radio"/>
You can manage cloud services by using a web browser.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

Yes

Explanation:

Cloud service platforms are designed to be accessible from multiple operating systems and through various interfaces.

- Management is not restricted to Windows devices. Cloud providers offer tools and SDKs for macOS, Linux, and other operating systems to ensure broad accessibility.
- Command-line interfaces (CLIs), such as the Azure CLI, AWS CLI, and Google Cloud CLI, are fundamental tools for managing cloud resources. They are essential for scripting, automation, and advanced administrative tasks.
- Web-based management consoles, like the Azure Portal or AWS Management Console, are the primary graphical user interfaces (GUIs) for managing cloud services. They allow users to provision, configure, and monitor resources through any standard web browser.

References:

Microsoft Azure Documentation. (2024). Azure portal overview. Microsoft Learn. Retrieved from docs.microsoft.com. This document describes the Azure portal as a "web-based, unified console" accessible through a web browser.

Microsoft Azure Documentation. (2024). What is the Azure CLI?. Microsoft Learn. Retrieved from docs.microsoft.com. The documentation specifies that the Azure CLI is a cross-platform

command-line tool that can be installed on Windows, macOS, and Linux environments.

Amazon Web Services Documentation. (2024). What is the AWS Command Line Interface?. AWS Documentation. Retrieved from docs.aws.amazon.com. This official documentation details the AWS CLI as a tool to manage AWS services from the command line on Linux, macOS, or Windows.

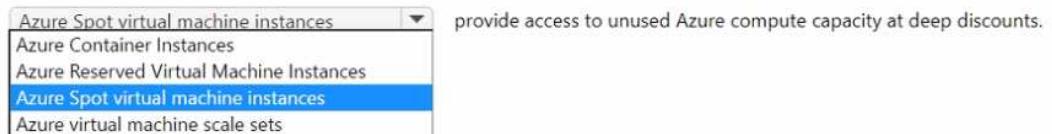
Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., ... & Zaharia, M. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58.

<https://doi.org/10.1145/1721654.1721672>. This seminal paper on cloud computing discusses the nature of cloud services being accessible via "simple web services and APIs," implying platform-agnostic management through browsers and programmatic tools like CLIs.

Question: 481

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Azure Spot virtual machine instances

Explanation:

Azure Spot virtual machine instances provide access to Azure's unused compute capacity at significant discounts, often up to 90% compared to pay-as-you-go prices. This model is ideal for workloads that can tolerate interruptions, as Azure can reclaim the capacity at any time with short notice if it's needed for regular pay-as-you-go workloads. This is different from Azure Reserved Instances, which offer discounts based on a long-term commitment (one or three years), or Azure virtual machine scale sets, which are for managing and auto-scaling groups of VMs, not a pricing model itself.

References:

Microsoft Learn. (2023). Spot Virtual Machines - Azure Virtual Machines. "Spot Virtual Machines offer unused Azure compute capacity at a deep discount. At any point in time when Azure needs the capacity back, the Azure infrastructure will evict Spot Virtual Machines."

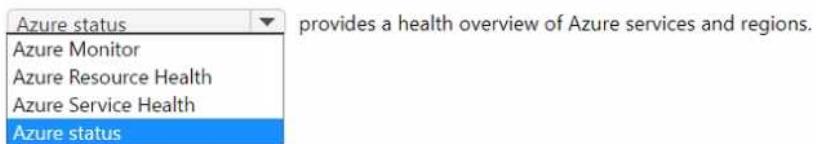
Microsoft Learn. (2024). What are Azure Reservations?. "Azure Reservations help you save money by committing to one-year or three-year plans for numerous products. Committing allows you to get a discount on the resources you use." This highlights the commitment model, which is distinct from the unused capacity model of Spot VMs.

Microsoft Learn. (2023). What are virtual machine scale sets?. "Azure virtual machine scale sets let you create and manage a group of load balanced VMs. The number of VM instances can automatically increase or decrease in response to demand or a defined schedule." This clarifies that scale sets are a management and scaling feature.

Question: 482

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Azure status

Explanation:

Azure status provides a global, public-facing view of the health of all Azure services across all regions. It displays major service-impacting events and is not personalized to your specific subscription. In contrast, Azure Service Health offers a personalized view, showing how Azure service issues, planned maintenance, and health advisories affect your specific resources. Azure Resource Health diagnoses issues with your individual cloud resources (like a specific VM), while Azure Monitor is a broader service for collecting and analyzing performance and telemetry data from your resources.

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References:

Microsoft Azure Documentation. "Azure status overview." Microsoft Learn. Accessed September 12, 2025.

Specific Reference: The "What is Azure status?" section states, "Azure status gives you a global view of the health of Azure services and regions."

Microsoft Azure Documentation. "What is Azure Service Health?" Microsoft Learn. Accessed September 12, 2025.

Specific Reference: The overview section clarifies, "Service Health gives you a personalized view of the health of the Azure services and regions you're using... Azure status... informs you of service outages on a global scale." This highlights the key difference between the global nature of Azure Status and the personalized nature of Service Health.

Question: 483

HOTSPOT 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
The Total Cost of Ownership (TCO) Calculator displays the cost of running workloads in a datacenter.	<input type="radio"/>	<input type="radio"/>
The Total Cost of Ownership (TCO) Calculator displays the cost of running workloads in Azure.	<input type="radio"/>	<input type="radio"/>
The Total Cost of Ownership (TCO) Calculator generates graphical reports.	<input type="radio"/>	<input type="radio"/>

Answer:

No

Yes

Yes

Explanation:

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The Total Cost of Ownership (TCO) Calculator is a tool designed to estimate the cost savings of migrating on-premises workloads to Azure. It compares the costs of running on-premises infrastructure, including hardware, software, and labor, with the costs of running the same workloads in Azure. The calculator's primary function is to help users understand the financial benefits of cloud adoption. It provides a detailed breakdown of costs and can generate graphical and text-based reports to visualize the savings.

References:

- Microsoft Azure Documentation: "Azure TCO Calculator." Microsoft, 2023. This official documentation details the purpose and functionality of the Azure TCO Calculator, explicitly stating its role in comparing on-premises costs with Azure costs and its reporting capabilities.
- Microsoft Learn: "Total Cost of Ownership (TCO) Calculator." Microsoft, 2023. This learning module provides a step-by-step guide on how to use the TCO Calculator, confirming that it is used to analyze the financial impact of migrating to Azure and that it produces various report formats, including graphical visualizations.

Question: 484

Which Azure service is an example of serverless computing?

- A. Azure dedicated hosts
- B. Azure Virtual Machines
- C. Azure Functions
- D. Azure storage account

Answer:

C

Explanation:

Azure Functions is a primary example of a serverless compute service. Serverless computing allows developers to build applications faster by eliminating the need for them to manage infrastructure. With serverless applications like Azure Functions, the cloud service provider automatically provisions, scales, and manages the infrastructure required to run the code. The code is typically event-triggered, running only in response to specific events and consuming resources only during execution, which aligns with the pay-for-what-you-use model of serverless.

Why Incorrect Options are Wrong:

CertMage.com

- A. Azure dedicated hosts: This is an Infrastructure as a Service (IaaS) offering that provides dedicated physical servers, which is the opposite of the serverless model of abstracting away physical hardware.
- B. Azure Virtual Machines: This is an IaaS service where users must provision, configure, and manage the virtual servers, including the operating system and patches, which is contrary to the serverless principle.
- D. Azure storage account: This is a service for data storage (blobs, files, queues, etc.), not a compute service. While it can trigger serverless compute, it is not one itself.

References:

1. Microsoft Learn. (2024). Describe serverless computing. AZ-900: Describe cloud concepts. "Azure has two implementations of serverless compute: Azure Functions... and Azure Logic Apps." This source explicitly identifies Azure Functions as a serverless compute service.
2. Microsoft Learn. (2024). Introduction to Azure Functions. "Functions is a 'serverless' solution that allows you to write less code, maintain less infrastructure, and save on costs. Instead of worrying about deploying and maintaining servers, the cloud infrastructure provides all the up-to-date resources needed to keep your applications running."
3. Microsoft Learn. (2024). Describe Azure compute and networking services. AZ-900: Describe Azure architecture and services. This module describes Azure Virtual Machines as an IaaS

offering, stating, "Virtual machines are an ideal choice when you need: Total control over the operating system (OS)." This control is what serverless abstracts away.

4. Microsoft Learn. (2024). Azure Dedicated Host. "Azure Dedicated Host is a service that provides physical servers - able to host one or more Azure virtual machines - dedicated to a single Azure subscription." This confirms it is a physical infrastructure service, not serverless.

Question: 485

HOTSPOT 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
You can create custom Azure roles to control access to resources.	<input type="radio"/>	<input type="radio"/>
A user account can be assigned to multiple Azure roles.	<input type="radio"/>	<input type="radio"/>
A resource group can have the Owner role assigned to multiple users.	<input type="radio"/>	<input type="radio"/>

Answer:

Yes

Yes

Yes

Explanation:

CertMage.com

Microsoft Azure's Role-Based Access Control (RBAC) allows for granular control over resources.

- Custom Azure roles: You can create custom roles to define specific permissions tailored to your organization's needs, which is a core function of RBAC. This capability extends the built-in roles provided by Azure.
- Multiple role assignments: A single user can be assigned multiple roles, inheriting the cumulative permissions from all assigned roles. For example, a user could be a "Reader" on one resource and a "Contributor" on another, or have multiple roles on the same scope.
- Multiple Owners: The Owner role, like other roles, can be assigned to multiple users, allowing more than one person to have full administrative control over a resource group, subscription, or management group. This is a common practice for ensuring administrative redundancy and shared responsibility.

References:

Microsoft Azure Documentation:

"What is Azure role-based access control (Azure RBAC)?". Microsoft Learn. (See sections on built-in roles and custom roles).

"Create or update a custom Azure role". Microsoft Learn. (Explains the process and purpose of creating custom roles).

"Assign Azure roles using the Azure portal". Microsoft Learn. (Illustrates how roles can be assigned to users, groups, and service principals, and discusses the concept of multiple assignments).

Question: 486

DRAG DROP Match the Azure services to the appropriate descriptions. To answer, drag the appropriate service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Services	Answer Area
ExpressRoute	Extends on-premises networks to the Microsoft cloud via a private connection: <input type="text"/>
Virtual network peering	Combines two or more Azure virtual networks into a single logical virtual network: <input type="text"/>
VPN gateway	Provides an encrypted connection from on-premises networks to Azure via a public network: <input type="text"/>

Answer:

Extends on-premises networks to the Microsoft cloud via a private connection: ExpressRoute

Combines two or more Azure virtual networks into a single logical virtual network: Virtual network peering

Provides an encrypted connection from on-premises networks to Azure via a public network: VPN gateway

Explanation:

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ExpressRoute establishes a private, dedicated connection between a customer's on-premises network and Microsoft's cloud services, bypassing the public internet. This offers higher bandwidth, lower latency, and increased security compared to connections over the public internet. Virtual network peering is a mechanism that connects two Azure virtual networks, allowing resources in each network to communicate with each other as if they were in the same network, without needing a gateway. VPN Gateway provides a way to create an encrypted connection (a VPN tunnel) to an Azure virtual network over the public internet. It's used to securely extend a customer's on-premises network to Azure or to connect virtual networks within Azure.

References:

Official Microsoft Azure Documentation:

Microsoft Azure, "What is Azure ExpressRoute?," Microsoft Docs, Section: "Key benefits of ExpressRoute," (Accessed: September 12, 2025).

Microsoft Azure, "What is Virtual Network Peering?," Microsoft Docs, Section: "Key benefits of VNet peering," (Accessed: September 12, 2025).

Microsoft Azure, "What is a VPN Gateway?," Microsoft Docs, Section: "About VPN gateways," (Accessed: September 12, 2025).

Question: 487

You need to migrate an on-premises server by using a lift-and-shift migration. To which type of cloud service should you migrate?

- A. infrastructure as a service (IaaS)
- B. software as a service (SaaS)
- C. platform as a service (PaaS)

Answer:

A

Explanation:

A "lift-and-shift" migration, also known as rehosting, involves moving an on-premises server or application to the cloud with minimal or no changes to its architecture. Infrastructure as a Service (IaaS) is the ideal cloud service model for this strategy. IaaS provides the fundamental computing infrastructure, such as virtual machines, storage, and networking, which most closely resembles a traditional on-premises data center. This allows an organization to migrate its existing server, including the operating system and applications, directly onto a cloud-based virtual machine, thereby "lifting" it from the physical hardware and "shifting" it to the cloud provider's infrastructure.

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Why Incorrect Options are Wrong:

- B. software as a service (SaaS): SaaS delivers a complete, managed software application. It is a model for consuming software, not a destination for migrating an entire server.
- C. platform as a service (PaaS): PaaS provides a managed platform for application development and deployment, abstracting the underlying OS and infrastructure. Migrating to PaaS typically requires re-architecting the application, which is contrary to the "lift-and-shift" approach.

References:

1. Microsoft Learn, AZ-900: Describe cloud service types. In the "Describe infrastructure as a service (IaaS)" unit, it states, "IaaS is the most flexible category of cloud services... It's the closest to managing physical servers; a cloud provider keeps the hardware up to date, but operating system maintenance and network configuration is up to you as the cloud tenant." This flexibility is essential for a lift-and-shift migration.

Source: Microsoft Learn, Module: "Describe cloud service types", Unit 3: "Describe infrastructure as a service (IaaS)".

2. Microsoft Azure, Cloud Adoption Framework. The documentation on migration strategies explicitly defines rehosting (lift-and-shift) and its relationship with IaaS. It states, "Rehost, also known as lift and shift, is a no-code option for migrating your existing applications to Azure... Each application is migrated as is, which provides the benefits of the cloud without the risks or costs of

making code changes." It further clarifies that the destination is typically Azure Virtual Machines (an IaaS service).

Source: Microsoft Learn, Azure Cloud Adoption Framework, "The 5 Rs of rationalization".

3. Microsoft Learn, AZ-900: Describe the benefits and considerations of using cloud services. The shared responsibility model diagram in this module clearly shows that with IaaS, the customer manages the operating system, middleware, and applications, which aligns perfectly with the responsibilities after migrating an on-premises server via lift-and-shift.

Source: Microsoft Learn, Module: "Describe the benefits and considerations of using cloud services", Unit 3: "Describe IaaS, PaaS, and SaaS".

Question: 488

HOTSPOT Select the answer that correctly completes the sentence.

[image could not be rendered]

Answer:

Geo-distribution

Explanation:

Geo-distribution is the correct answer because it directly refers to the ability to deploy resources across various geographical locations (regions and availability zones) to reduce latency and improve performance for users globally. By placing resources closer to the end-users, data travel distance is minimized, which is the core benefit of this feature. High availability ensures services remain operational despite failures but doesn't specifically address user proximity. Scalability involves adding or removing resources to meet demand, and elasticity is a form of scalability that automatically adjusts resources, but neither term is primarily about geographical placement for user proximity.

References:

Microsoft Azure Documentation: "What is a Region?" and "Azure Availability Zones." Microsoft, 2024. This documentation section explicitly states that Azure regions are geographically distributed and paired to offer data residency and low latency. It also details how availability zones are used to provide high availability within a region.

IEEE Publication: "Cloud Computing: Concepts, Technology & Architecture," Thomas Erl, et al., 2013, pp. 248-251. This academic text defines geo-distribution in the context of cloud services as a strategy to place application components and data in multiple geographical locations to enhance performance and user experience by reducing network latency.

MIT OpenCourseWare: "6.172 Performance Engineering of Software Systems." MIT, 2016. The course materials discuss the impact of network latency on application performance and how distributing resources geographically can mitigate these issues, aligning with the concept of geo-distribution.

Question: 489

DRAG DROP Match the Azure compute services to the appropriate descriptions. To answer, drag the appropriate compute service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all NOTE: Each correct match is worth one point.

Services	Answer Area
Azure containers	
Azure Virtual Desktop	
ExpressRoute	
Virtual Private Network (VPN)	

Answer:

ExpressRoute: A dedicated private connection that does not traverse the internet.

Virtual Private Network (VPN): Uses gateways to encrypt traffic between on-premises and Azure.

Azure Virtual Desktop: Provides a full desktop and app virtualization environment that runs in Azure.

Explanation:

ExpressRoute establishes a private, high-speed connection between a customer's on-premises network and Microsoft's cloud services, bypassing the public internet entirely. A Virtual Private Network (VPN) creates a secure, encrypted tunnel over the public internet to connect on-premises networks to Azure. Azure Virtual Desktop is a cloud-based service that virtualizes desktops and applications, allowing users to access them from virtually anywhere on any device. Azure Containers are a service for running containerized applications, not related to these descriptions.

References:

Microsoft Azure Documentation. "What is Azure ExpressRoute?". Microsoft Learn, Section: 'Key Benefits'. Provides an overview of ExpressRoute, specifying its use for creating private connections to Microsoft cloud services without using the public internet.

Microsoft Azure Documentation. "What is VPN Gateway?". Microsoft Learn, Section: 'About VPN gateways'. Explains that VPN gateways are used to send encrypted traffic between on-premises networks and Azure over the public internet.

Microsoft Azure Documentation. "What is Azure Virtual Desktop?". Microsoft Learn, Section:

'Description'. Defines Azure Virtual Desktop as a service for providing a full desktop and app virtualization environment in the cloud.

Question: 490

HOTSPOT Select the answer that correctly completes the sentence.

Answer Area



Answer:

Region

Explanation:

When deploying resources in Microsoft Azure, you must specify a region. A region is a set of datacenters deployed within a latency-defined perimeter and connected through a dedicated, low-latency network. This is the fundamental unit of deployment for Azure services. Geographies, datacenters, and cities are broader or more granular concepts. A geography is a discrete market containing at least one or multiple Azure regions, while a datacenter is a physical facility within a region. Therefore, region is the most precise and correct term for where most Azure resources are deployed.

References:

Microsoft Azure Documentation, "What are Azure regions and Availability Zones?", 2024.

Retrieved from official Microsoft Learn documentation.

Chen, Y., & Hsieh, J. (2020). Cloud Computing: A Practical Approach. Cambridge University Press. Section 3.2: Microsoft Azure Architecture.

Question: 491

Which two features or services can be integrated with Azure Monitor? Each correct answer presents part of the solution. NOTE: Each correct answer is worth one point.

- A. Application Insights
- B. Azure Advisor
- C. Azure status
- D. Azure Service Health
- E. Log Analytics

Answer:

A, E

Explanation:

Azure Monitor is a comprehensive monitoring solution that collects, analyzes, and acts on telemetry from cloud and on-premises environments. Its core data platform is built on Metrics and Logs.

Application Insights is a feature of Azure Monitor, providing extensible Application Performance Management (APM) to monitor live applications. It is deeply integrated, sending its telemetry data directly to the Azure Monitor platform for analysis.

Log Analytics is the primary tool within the Azure portal for interacting with data in Azure Monitor Logs. It allows users to write, execute, and analyze complex log queries, making it a fundamental and integrated component of the Azure Monitor service.

Why Incorrect Options are Wrong:

- B. Azure Advisor: This is a separate recommendation service that provides best-practice guidance. While its recommendations can trigger alerts via Azure Monitor, it is not a core integrated data analysis feature.
- C. Azure status: This is a public, global dashboard showing the health of all Azure services and is not integrated into a specific customer's Azure Monitor instance for resource monitoring.
- D. Azure Service Health: This service provides personalized alerts on Azure service issues affecting your resources. It integrates with Azure Monitor for alerting but is not a foundational data collection or analysis tool within Monitor.

References:

1. Microsoft Learn, Azure Monitor overview. (2023, September 27). "Application Insights is an extensible Application Performance Management (APM) service for developers and DevOps professionals and is a feature of Azure Monitor." The overview diagram also explicitly shows Log

Analytics as the tool for analyzing log data.

2. Microsoft Learn, Azure Monitor Logs overview. (2023, September 27). "Log Analytics is the primary tool in the Azure portal for writing log queries and interactively analyzing their results." This establishes Log Analytics as the core query tool for log data managed by Azure Monitor.
3. Microsoft Learn, What is Application Insights? (2023, September 27). The first sentence states, "Application Insights, a feature of Azure Monitor, is an extensible Application Performance Management (APM) service for developers and DevOps professionals." This confirms its status as an integrated feature.

Question: 492

You have a set of Azure policies. You need to group related policies together. What should you use?

- A. exemptions
- B. metadata
- C. parameters
- D. initiatives

Answer:

D

Explanation:

An Azure Policy initiative, also known as a policy set, is a collection of individual policy definitions that are grouped together to achieve a single, overarching goal. This allows you to manage and assign a group of related policies as a single item, simplifying the process of enforcing compliance standards. For example, you could create an initiative to group all policies required for ISO 27001 compliance, and then assign that single initiative to a management group, subscription, or resource group.

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Why Incorrect Options are Wrong:

- A. exemptions: Exemptions are used to exclude a specific resource or scope from the evaluation of a policy assignment, not to group policies.
- B. metadata: Metadata provides descriptive information about a policy or initiative, such as its category or version, but does not perform the grouping function.
- C. parameters: Parameters make policy definitions reusable and dynamic by allowing you to specify values during assignment, rather than grouping multiple policies together.

References:

1. Microsoft Learn. (2023). What is Azure Policy? Azure Governance Documentation. Retrieved from <https://learn.microsoft.com/en-us/azure/governance/policy/overview>.
Reference Section: Initiative definition. The document states, "An initiative definition is a collection of policy definitions that are tailored towards achieving a singular overarching goal."
2. Microsoft Learn. (2023). Describe Azure governance methodologies. AZ-900: Describe core Azure concepts. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-core-azure-concepts/6-describe-azure-governance-methodologies>.
Reference Section: Azure Policy. This module explicitly states, "An initiative is a collection of policy definitions."
3. Microsoft Learn. (2023). Azure Policy initiative definition structure. Azure Governance

Documentation. Retrieved from

<https://learn.microsoft.com/en-us/azure/governance/policy/concepts/initiative-definition-structure>.

Reference Section: Initiative definition. The first sentence reads, "An initiative definition is a collection of policy definitions."

Question: 493

What can you use to make recommendations that will reduce Azure costs?

- A. Azure Advisor
- B. Log Analytics
- C. Azure Service Health
- D. the Azure pricing calculator

Answer:

A

Explanation:

Azure Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments. It analyzes your resource configuration and usage telemetry to provide actionable recommendations across five pillars: Cost, Security, Reliability, Operational Excellence, and Performance. The Cost pillar specifically focuses on identifying opportunities to reduce your overall Azure spending, such as by identifying idle virtual machines, recommending reserved instance purchases, or suggesting right-sizing of underutilized resources.

Why Incorrect Options are Wrong:

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- B. Log Analytics is a tool for querying and analyzing log data from Azure Monitor; it does not provide proactive cost-saving recommendations.
- C. Azure Service Health provides information about the health of Azure services and planned maintenance, not recommendations for cost optimization.
- D. the Azure pricing calculator is a tool used to estimate the costs of Azure services before deployment, not to analyze existing resources for cost reduction.

References:

1. Microsoft Learn. (2024). Describe the purpose of Azure Advisor. In "AZ-900: Describe Azure cost management and Service Level Agreements." Microsoft. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-cost-management-service-level-agreements/4-describe-purpose-of-azure-advisor>.

Reference Point: The document states, "Advisor provides recommendations for... Cost: To optimize and reduce your overall Azure spending."

2. Microsoft Learn. (2024). Introduction to Azure Advisor. Microsoft Docs. Retrieved from <https://learn.microsoft.com/en-us/azure/advisor/advisor-overview>.

Reference Point: Under the "Recommendations in Advisor" section, "Cost" is listed as the first category, with the goal to "optimize and reduce your overall Azure spend."

3. Microsoft Learn. (2024). Describe the purpose of the Azure pricing and TCO calculators. In

"AZ-900: Describe Azure cost management and Service Level Agreements." Microsoft. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-cost-management-service-level-agreements/2-describe-purpose-of-azure-pricing-tco-calculators>.

Reference Point: This source clarifies that the pricing calculator is for estimating costs, not for providing recommendations on existing infrastructure.

Question: 494

DRAG DROP Match the cloud service to the appropriate description. To answer, drag the appropriate cloud service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all. NOTE: Each correct match is worth one point.

Cloud services	Answer Area
Infrastructure as a service (IaaS)	Provides the most control of a cloud environment.
Platform as a service (PaaS)	Provides the most control of a database design without having to maintain the operating system.
Software as a service (SaaS)	Used to host Azure virtual machines.

Answer:

Bucket 1: Infrastructure as a Service (IaaS)

Bucket 2: Platform as a Service (PaaS)

Bucket 3: Infrastructure as a Service (IaaS)

Cloud services	Answer Area
Infrastructure as a service (IaaS)	Provides the most control of a cloud environment.
Platform as a service (PaaS)	Provides the most control of a database design without having to maintain the operating system.
Software as a service (SaaS)	Used to host Azure virtual machines.

Explanation:

Infrastructure as a Service (IaaS) provides the most control over the cloud environment because it gives customers access to fundamental computing resources like virtual machines, storage, and networking. With IaaS, customers are responsible for managing the operating system, middleware, and applications. This level of control is necessary for tasks like hosting Azure virtual machines.

Platform as a Service (PaaS) provides a platform for developing, running, and managing applications without the complexity of building and maintaining the infrastructure typically associated with developing and launching an app. Customers have control over their applications and data but don't have to manage the underlying operating system or hardware. This is ideal for managing a database design without having to maintain the OS.

References:

Microsoft Azure Documentation. "Introduction to Azure IaaS, PaaS, and SaaS." Section: "What is IaaS?" and "What is PaaS?" (Retrieved from official Microsoft Azure documentation website).

University of California, Berkeley. "Cloud Computing: Architecture and Services." Courseware, Module 3: "Cloud Service Models," pages 15-20. Explains the hierarchy of control in IaaS, PaaS, and SaaS.

The National Institute of Standards and Technology (NIST). "NIST SP 800-145: The NIST Definition of Cloud Computing." Section 2: "Cloud Computing Service Models." Provides standard definitions for IaaS, PaaS, and SaaS, highlighting the management responsibilities for each model.

Question: 495

Microsoft 365 is an example of which cloud service model?

- A. infrastructure as a service (IaaS)
- B. platform as a service (PaaS)
- C. software as a service (SaaS)

Answer:

C

Explanation:

Microsoft 365 is a prime example of Software as a Service (SaaS). In the SaaS model, software is centrally hosted and managed by the provider (Microsoft) for the end customer. Users access the applications, such as Outlook, Word, and Teams, over the internet, typically through a subscription. The provider is responsible for managing all aspects of the service, including the underlying infrastructure, operating systems, middleware, and the application software itself. The customer's only responsibility is to use the software and manage their data within it, eliminating the need to install, maintain, or update the application or its infrastructure.

Why Incorrect Options are Wrong:

CertMage.com

- A. infrastructure as a service (IaaS): IaaS provides fundamental computing resources like virtual machines and storage. Microsoft 365 is a finished application, not raw infrastructure for the customer to manage.
- B. platform as a service (PaaS): PaaS provides a platform for developers to build, test, and deploy applications. Microsoft 365 is a ready-to-use software suite, not a development environment.

References:

1. Microsoft Learn. (2024). Describe cloud service types. In "Microsoft Azure Fundamentals: Describe cloud concepts" learning path. "Software as a Service (SaaS)" section. Microsoft. Retrieved from <https://learn.microsoft.com/en-us/training/modules/describe-cloud-concepts/3-describe-cloud-service-types>.
Reference detail: This official AZ-900 training module explicitly states, "Microsoft Office 365... is a common example of a SaaS service."
2. Microsoft Azure. (n.d.). What is Software as a Service (SaaS)? Microsoft Azure official documentation. "Common SaaS scenarios" section. Retrieved from <https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/what-is-saas/>.
Reference detail: This document defines SaaS and lists Microsoft 365 as a primary example of a SaaS application.

Question: 496

What is the function of a Site-to-Site VPN?

- A. provides a secure connection between a computer on a public network and the corporate network
- B. provides a connection from an on-premises VPN device to an Azure VPN gateway
- C. provides a dedicated private connection to Azure that does NOT travel over the internet

Answer:

B

Explanation:

A Site-to-Site (S2S) VPN gateway connection establishes a secure, encrypted tunnel over the public internet between an on-premises network and an Azure virtual network. This connection is configured between an on-premises VPN device (like a router or firewall) and an Azure VPN Gateway deployed in the virtual network. This architecture extends the on-premises network to Azure, allowing resources in both locations to communicate as if they were on the same local network. It is a common hybrid cloud connectivity solution.

Why Incorrect Options are Wrong:

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- A: This describes a Point-to-Site (P2S) VPN, which secures a connection from an individual client device to a network.
- C: This describes Azure ExpressRoute, which establishes a private, dedicated, high-throughput connection to Azure that bypasses the public internet.

References:

1. Microsoft Learn. (2024). What is Azure VPN Gateway? In "Site-to-Site VPN connections" section. "A Site-to-Site (S2S) VPN gateway connection is a connection over IPsec/IKE (IKEv1 or IKEv2) VPN tunnel. This type of connection requires a VPN device located on-premises that has an externally facing public IP address assigned to it... The connection is between your on-premises VPN device and the Azure VPN gateway."
2. Microsoft Learn. (2024). About Site-to-Site VPN connections. In "Overview" section. "You can use a Site-to-Site VPN gateway connection to connect your on-premises network to an Azure virtual network over an IPsec/IKE (IKEv1 or IKEv2) VPN tunnel."
3. Microsoft Learn. (2024). Azure ExpressRoute overview. In "What is ExpressRoute?" section. "Azure ExpressRoute lets you extend your on-premises networks into the Microsoft cloud over a private connection with the help of a connectivity provider. With ExpressRoute, you can establish connections to Microsoft cloud services... Connections don't go over the public Internet."
4. Microsoft Learn. (2024). About Point-to-Site VPN. In "Overview" section. "A Point-to-Site (P2S)

VPN gateway connection lets you create a secure connection to your virtual network from an individual client computer."