Exam Session - Cert Prep: Microsoft Azure Fundamentals (AZ-900)

cloudacademy.com/quiz/exam/3758933/results

#1

Which of the following cost-saving options is available to Enterprise customers only?

✗
Reserved VM instances

✗
Azure Hybrid Benefit

✗
Dev/Test Pricing

✓
15% Discounts on Public Prices

Explanation

The web direct method is a pay-as-you-go plan, billed monthly. Web direct customers pay public, general prices for Azure services. When using the web direct plan, review the additional options for savings, such as the Azure Reserved VM Instances, Azure Hybrid Benefit, and Dev/test pricing.

Enterprise Agreement customers can enjoy savings of between 15 and 45% over the public Azure prices.

/course/understanding-azure-pricing-and-support/planning-and-management/

#2

What method offers the highest level of availability in the Azure cloud?

✗
Distributing your virtual machines in different update domains and fault domains.

✗
Distributing your application layers in different availability sets.

✗
Distributing replicas of your virtual machines in different availability zones.

✓
Deploying copies of your entire application into different regions.

Explanation

Update domains and fault domain offer an increased amount of availability for your virtual machines. Availability sets add resiliency to your application layers., but within the same datacenter. Distributing sections of each application layer into multiple availability zones could increase your ability even further, and finally having separate versions of your entire application in different regions offers the highest level of availability.

https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/app-service-web-app/multi-region

#3

Which Azure storage type offers a simplified alternative to using a non-relational database?

✗
Blob storage

✗
Queue storage

✗
File storage

✓
Table storage

Explanation

There are four Azure storage services: Blob storage, Table storage, Queue storage, and File storage. Blob storage is often referred to as object storage as it stores unstructured object data. Table storage, on the other hand, stores structured datasets using a NoSQL key/attribute store that provides a schemaless design, making it different from traditional relational databases. This is one reason why it is a popular alternative to traditional relational databases. For asynchronous communication between application components, Queue storage is your choice. Finally, Azure File storage offers cloud-based SMB file shares to reduce rewrites when migrating legacy applications that rely on file shares.

https://azure.microsoft.com/en-us/documentation/articles/storage-introduction/#table-storage

#4

_____ prevent(s) resources from being accidentally deleted or changed.

✗ Azure Blueprints

✗ Azure Policy

✓ Resource locks

✗ Microsoft Service Trust Portal

Explanation

As an administrator, you can use resource locks to lock an Azure subscription, resource group, or resource to protect them from accidental user deletions and modifications. The lock overrides any user permissions.

You can set locks that prevent either deletions or modifications. In the portal, these locks are called Delete and Read-only. In the command line, these locks are called CanNotDelete and ReadOnly. In the left navigation panel, the subscription lock feature's name is Resource locks, while the resource group lock feature's name is Locks.

Azure Blueprints define a repeatable set of Azure resources. Azure Blueprints enable development teams to rapidly provision and run new environments, with the knowledge that they're in line with the organization’s compliance requirements. Teams can also provide Azure resources across several subscriptions simultaneously, meaning they can achieve shorter development times and quick delivery.

Azure Policy is designed to help enforce standards and assess compliance across your organization. Through its compliance dashboard, you can access an aggregated view to help evaluate the overall state of the environment. You can drill down to a per-resource, or per-policy level granularity. You can also use capabilities like bulk remediation for existing resources and automatic remediation for new resources, to resolve issues rapidly and effectively.

The Service Trust Portal contains details about Microsoft's implementation of controls and processes that protect our cloud services and the customer data therein.

https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/lock-resources?tabs=json

#5

Which statements about the key financial advantages of migrating to an Azure cloud environment are correct? (Choose 2 answers.)

✗

In the proposed Azure cloud environment, operating expenditures will be unchanging and fixed.

✓

The firm’s capital expenditures will be lowered because the company will only pay for the cloud services it needs at a specific point in time, for example on a monthly basis.

✓

Expanding to the cloud will increase your applications' compute and storage capacities without increasing existing hardware purchasing and maintenance costs.

✗

Migrating to the Azure cloud avoids calculating your annual cloud resource budget or signing long-term contracts for cloud services.

Explanation

One of the advantages of migrating to the cloud is that you can use opex instead of capex. Operating expenditures (opex) are ongoing costs of doing business. A cloud environment operates on an opex model where a company only pays for services it needs at the specific point in time. These services include cloud subscriptions. Therefore, cloud subscription services are not considered long-term investments. Furthermore, risks are lowered and no equipment maintenance is required. Opex items are typically more straightforward from an accounting perspective. Operating expenditures can be simply subtracted from the company’s revenue to calculate profit, which reflects costs more accurately than depreciating CapEx investments.

/course/what-is-cloud-computing-introductory/what-is-cloud-computing-1/

#6

The Azure Cost Management Tool can help you answer which question?

✗ How much would I save by migrating to the cloud?

✗ What will my Azure resource cost once I deploy it?

✓ Which deployed Azure resources are underutilized?

✗ How have other developers addressed the deployment issues I have encountered?

Explanation

The Cost blade redirects you to the Azure Cost Management tool in the portal. This tool provides insight into how well your resources are being utilized and identify underutilized or unused resources. If you choose to follow the recommendations of the Azure Advisor you can remove unused resources and configure the remaining resources to more closely match the actual demand for them. Additionally, the Azure Cost Management tool provides the ability to perform a cost analysis, set up budgets to control costs and view cost alerts defined in your budget.

/course/understanding-azure-pricing-and-support/planning-and-management/

#7

When using the Azure Site Recovery service, what Azure storage type does Microsoft recommend for replication to Azure?

✗ Premium storage

✗ Virtual storage

✗ Locally redundant storage

✓ Geo-redundant storage

Explanation

You need an Azure storage account to store replicated data, and it must be in the same region as the Recovery Services vault. Replicated data is stored in Azure storage, and Azure VMs are created when failover occurs. While you can use geo-redundant storage or locally redundant storage, Microsoft recommends geo-redundant storage so that data is resilient if a regional outage occurs, or if the primary region cannot be recovered.

https://docs.microsoft.com/en-us/azure/site-recovery/site-recovery-prereq#azure-requirements
Covered in this lecture
Summary
Course:Overview of Azure Services

4m

#8

Your organization is moving to the Azure cloud in order to take advantage of the consumption-based expense model of cloud computing. Which of the following is an advantage of the consumption-based expense model? (Choose 2 answers)

✗
The ability to make one-time, up-front expenditures to purchase or secure tangible resources

✗
The importance of estimating future resource needs

✓
The ability to pay for more resources when they're needed

✓
The ability to stop paying for resources that are no longer needed

Explanation

This consumption-based model has many benefits, including:

- No upfront costs.
- No need to purchase and manage the costly infrastructure that users might not use to its fullest potential.
- The ability to pay for more resources when they're needed.
- The ability to stop paying for resources that are no longer needed.

https://docs.microsoft.com/en-us/learn/modules/describe-cloud-compute/6-describe-consumption-based-model

#9

To answer this question, review the statement below and decide if the statement is correct as it is, or if the underlined portion of the statement needs to be replaced with one of the choices below.Considering the concept of shared responsibility regarding cloud security, Azure bears the highest degree of responsibility for security within SaaS model services.

✓ The statement is correct.

✗ PaaS model services

✗ IaaS model services

✗ Machine Learning (ML) services

Explanation

Software as a Service (SaaS) is the cloud computing service model where Microsoft Azure or another cloud service provider offers the highest level of service management, meaning they take care of a great deal of day-to-day service management. This can include responsibilities including data center security, virtual machine, and network controls, as well as application controls.

/course/microsoft-azure-security-solutions/shared-responsibility-1

#10

You are using ExpressRoute for connectivity between your company's data center and Microsoft Azure. What is required for Microsoft's SLA to be valid?

✓ Redundant Layer 3 connectivity

✗ A minimum of 1 Gbps bandwidth

✗
Use of the “unlimited data” billing model

✗
Using redundant Azure services in different geographic regions

Explanation

ExpressRoute is Microsoft’s highest cost option for providing connectivity between Azure and your company’s data center. It provides provides private, dedicated network connectivity to Microsoft cloud services. For Microsoft’s SLA to be valid, there must be redundant Layer 3 connectivity.

https://docs.microsoft.com/en-us/azure/expressroute/expressroute-introduction

Covered in this lecture
Azure Virtual Networks
Course:Implementing Azure Network Security

2m

#11

Which Azure networking service offers an encrypted public connection between Azure networks and on-premises networks?

✗
Azure Virtual Networks

✓
Virtual Private Networks (VPNs)

✗
Azure ExpressRoute

✗
Virtual Network Peering

Explanation

If you want to create a secure connection between a VNet and an on-premises network, then you can use either a VPN, which stands for Virtual Private Network, or Azure ExpressRoute. A VPN sends encrypted traffic over the public internet, whereas ExpressRoute communicates

over a private, dedicated connection between your site and Microsoft's Azure network. ExpressRoute is much more expensive than a VPN, but it provides higher speed and reliability since it's a dedicated connection.

/course/overview-of-azure-services/azure-overview/
Covered in this lecture
Azure Overview
Course:Overview of Azure Services

8m

#12

You would like to follow security best practices for your Azure VMs. Which service below will monitor your Azure resources and provide recommendations to address security vulnerabilities, including any missing network security groups, unencrypted disks, or missing security or software patches?

✓ Microsoft Defender for Cloud

✗ Azure Network Watcher

✗ Log Analytics

✗ Azure Key Vault

Explanation

Microsoft Defender for Cloud is the source of the comprehensive monitoring of all the aspects of security of the virtual machine. It also provides its recommendations through Azure Advisor. Its recommendations consist of not only configuration changes but also potential partner solutions, such as web application firewalls.

https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-azure-security
Covered in this lecture
Summary
Course:Overview of Azure Services

4m

#13

What is an Azure infrastructure security management system that strengthens the security posture of your data centers and provides advanced threat protection across your hybrid workloads in the cloud and on-premises?

✓ Microsoft Defender for Cloud (formerly Azure Security Center)

✗ Azure Monitor

✗ Azure Advisor

✗ Azure Firewall

Explanation

Microsoft Defender for Cloud is a unified infrastructure security management system that strengthens the security posture of your data centers and provides advanced threat protection across your hybrid workloads in the cloud.

https://docs.microsoft.com/en-us/azure/security-center/security-center-introduction

#14

According to Microsoft Azure's shared responsibility model, which Azure cloud service model places the most responsibility regarding security and operations on Microsoft Azure rather than the customer?

✗ PaaS

✓ SaaS

✗

IaaS


FaaS

Explanation

For on-premises solutions, the customer will always be responsible for all aspects of security and operations. For IaaS solutions, the cloud provider will be responsible for the tangible aspects. Solutions built on the PaaS platform push more responsibility onto the cloud provider. SaaS solutions push even more responsibility onto the provider. This is because the cloud provider provides the application to the customer as a service. This removes the customer's responsibility for ANY underlying components. That said, the customer is still responsible for ensuring that its data is properly classified. The provider and customer will share the responsibility for managing users and end-point devices.

 /course/what-is-cloud-computing-introductory/cloud-service-models/

#15

What is the goal of high availability and fault tolerance?


to keep your systems up and running should something fail within your architecture


to prevent single points of failure in a system


to keep the integrity of data intact in the event of a system failure


to keep the privacy of data intact in the event of a security breach

Explanation

What's the difference between high availability and fault tolerance? They both ultimately have the same goal, to keep your systems up and running should something fail within your architecture, but there is a difference.

 /course/difference-between-ha-ft-1269/

#16

An organization wants to migrate gradually to the Azure cloud. Which cloud deployment model will operate similarly to an on-premises virtual machine?


Serverless


IaaS


PaaS


SaaS

Explanation

IaaS gives an organization a server in the cloud (virtual machine) that they have complete control over. With an Azure Virtual Machine, the organization is responsible for managing everything from the Operating System to the applications they are running. This mode of operation will feel most like a typical on-premises virtual machine where you remote desktop into the server to manage it instead of sitting down in front of a physical keyboard and mouse.

 /course/what-is-cloud-computing-introductory/cloud-service-models/

#17

Which of the following use cases would be the best fit for a solution that uses Azure Point-to-Site (P2S) connections?


A company that needs to simultaneously connect 500 client machines on their corporate network to an Azure virtual network (VNet)


An administrator that needs to connect 2 Azure VNets in the same region without using a VPN device

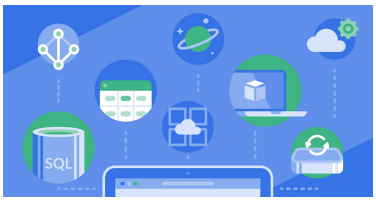

A company that needs to provide 50 remote users with laptops running the Windows 10 operating system access to an Azure VNet

A company that needs to provide 12 remote users with laptops running Mac OS X 10.12 access to a private corporate network

Explanation

The following operating systems are supported for Azure P2S connections: the following operating systems are supported as client operating systems for Azure P2S connections: Windows 7 (32-bit and 64-bit), Windows Server 2008 R2 (64-bit), Windows 8 (32-bit and 64-bit), Windows 8.1 (32-bit and 64-bit), Windows Server 2012 (64-bit), Windows Server 2012 R2 (64-bit), and Windows 10. P2S connections can support up to 128 connections at the same time. Azure VNets in the same region can be connected together without a VPN device using VNet Peering.

https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-vpn-faq#a-namep2sapoint-to-site-connections
Covered in this lecture
Azure Overview
Course:Overview of Azure Services



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#18

Complete the following statement: Authorization determines _____.

Authorization determines **what you can do**.

Authorization determines **who you are.**

Authorization determines **why you need access.**

Authorization determines **the number and type of resources you create, update, or delete.**

Explanation

Authorization one aspect of controlling access to resources. While authentication determines your identity, or who you are, authorization determines what resources you have access to, and what operations you may perform on those resources. In plain English, it determines what you can do.

/course/microsoft-azure-security-solutions/shared-responsibility-1/

#19

Your organization wants to design its applications hosted on Azure Virtual Machines (VMs) to maintain service in the event of a complete data center failure. Which of the following design steps will help the organization achieve this objective?

✗ Deploy the application's VMs within multiple Fault Domains

✗ Deploy the application's VMs within multiple Virtual Machine Scale Sets (VMSS)

✓ Deploy the application's VMs within multiple Availability Zones

✗ Deploy the application's VMs within multiple Resource Groups

Explanation

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. Each zone is made up of one or more datacenters equipped with independent power, cooling, and networking. To ensure resiliency, there is a minimum of three separate zones in all enabled regions.

https://docs.microsoft.com/en-us/azure/availability-zones/az-overview

#20

Which ExpressRoute connectivity model allows you to connect directly into Microsoft's global network at one of several peering locations strategically distributed across the world?

✗ CloudExchange co-location

✗

point-to-point Ethernet connection

any-to-any (IPVPN) connection

ExpressRoute Direct

Explanation

There are four ExpressRoute connectivity models, allowing you to create a connection between your on-premises network and the Microsoft cloud in four different ways. These models are CloudExchange co-location, point-to-point Ethernet connection, any-to-any (IPVPN) connection, and ExpressRoute Direct. Connectivity providers may offer one or more connectivity models.

First, if you are co-located in a facility with a cloud exchange, you can order virtual cross-connections to the Microsoft cloud through the co-location provider's Ethernet exchange.

Second, you can connect your on-premises datacenters/offices to the Microsoft cloud through point-to-point Ethernet links. Point-to-point Ethernet providers can offer Layer 2 connections, or managed Layer 3 connections between your site and the Microsoft cloud.

Third, you can integrate your WAN with the Microsoft cloud. IPVPN providers (typically MPLS VPN) offer any-to-any connectivity between your branch offices and datacenters. The Microsoft cloud can be interconnected to your WAN to make it look just like any other branch office.

Fourth, you can connect directly into the Microsoft global network at one of several peering locations strategically distributed across the world. Reference: https://docs.microsoft.com/en-us/azure/expressroute/expressroute-connectivity-models

https://docs.microsoft.com/en-us/azure/expressroute/expressroute-connectivity-models

#21

In Microsoft Azure Storage, _____ provides a reliable messaging system that allows for the scheduling of asynchronous tasks and implementing persistent messaging.

content delivery networks

page blobs

✓

queues

✗

notification hubs

Explanation

In Microsoft Azure Storage, Queues provides a reliable messaging system that allows implementing a schedule for asynchronous tasks, and persistent messaging.

Page blobs are also available in Azure Storage but provide different benefits. Content Delivery Networks are not available through Azure Storage. They are provided through Azure CDN. Notification Hubs are also not provided through Azure Storage, but instead through the aptly named Azure Notification Hub service.

https://docs.microsoft.com/en-us/azure/storage/queues/storage-queues-introduction

#22

Where are Conditional Access policies created and managed in Azure?

✗

Privileged Identity Management

✗

Azure Monitor

✗

Microsoft Defender for the Cloud

✓

Azure Active Directory

Explanation

Conditional Access is an Azure AD feature that allows you to decide who can and can't access data or other assets, based on conditions that you specify. Conditional Access policies, which are created and managed in Azure AD, rely on several signals to control who can access what data, and from where.

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

#23

Which categories of Azure services support Availability Zones? (Choose 2 answers)

✓ Zonal services

✗ Regional services

✗ Non-regional service

✓ Zone-redundant service

Explanation

Azure services that support Availability Zones fall into two categories. Zonal services are those in which a resource is pinned to a specific zone (for example, virtual machines, managed disks, standard IP addresses). Zone-redundant services are those in which the Azure platform replicates automatically across zones (for example, zone-redundant storage, SQL database).

A regional service is an Azure service that is deployed regionally and enables the customer to specify the region into which the service will be deployed. A non-regional service is an Azure service for which there is no dependency on a specific Azure region. Reference: https://docs.microsoft.com/en-us/azure/availability-zones/az-overview#availability-zones

https://docs.microsoft.com/en-us/azure/availability-zones/az-overview

#24

Which Azure resource provides useful links to assist organizations going through these compliance audits based on standards like FedRAMP or ISO27001?

✗ Trust Center

✓ Service Trust Portal

GDPR

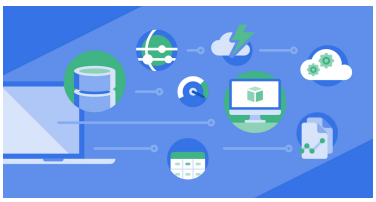
Azure Portal

Explanation

The Service Trust Portal is focused specifically on compliance. For example, it has links to Azure audit reports for regulatory standards like SOC, FedRAMP, and ISO27001. These will be helpful if your organization is going through these compliance audits.

/course/az-900-exam-prep-additional-topics/additional-topics/

Covered in this lecture
Additional Topics
Course:AZ-900 Exam Prep - Additional Topics



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#25

Which statements describe the benefits of implementing Azure regional pairs? (Choose 2 answers)

Regional pairs provide physical isolation so that a physical network outage will not affect both regions at once.

Utilizing regional pairs provides data residency requirements for tax jurisdiction purposes in most cases.

Regional pairs allow planned Azure system updates to be rolled out to paired regions at the same time.

Utilizing regional pairs ensures that the recovery of one regional pair is prioritized over every other pair.

Explanation

Regional pairs provide physical isolation, such that physical datacenter separation reduces the likelihood of natural disasters, civil unrest, power outages, or physical network outages affecting both regions at once. Additionally, most regions reside within the same geography as their pair to meet data residency requirements for tax and law enforcement jurisdiction purposes.

Furthermore, when considering region recovery order, recovery of one region is prioritized out of every pair. Lastly, planned Azure system updates are rolled out to paired regions sequentially (not at the same time) to minimize downtime, the effect of bugs, and logical failures in the rare event of a bad update.

https://docs.microsoft.com/en-us/azure/best-practices-availability-paired-regions#what-are-paired-regions
#26

How does Azure Resource Manager enable control over access to specific actions to resources?


Resource Manager uses encryption to secure resources.


Resource Manager uses exported key private and public key pairs for each action request.


Resource Manager natively integrates and applies role-based access control (RBAC) into the management platform and services.


Resource Manager uses an API user ID and password pair to secure the entire infrastructure.

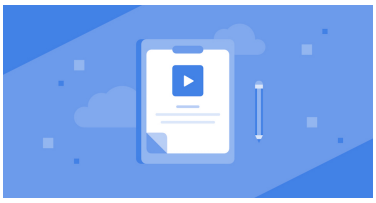
Explanation

It is always important to secure resources appropriately. Azure role-based access control (RBAC) offers fine-grained access management for Azure. Using RBAC, you can segregate duties within your team and grant only the amount of access to users that they need to perform their jobs.

https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-overview#access-control
Covered in this lecture
Azure ARM Intro Overview

Course:Introduction to Azure Resource Manager

6m



#27

Which of the following is an example of a way in which Azure Advisor can help manage cost?

✓

You can use Azure Advisor to identify underutilized machines so you can resize them.

✗

You can use Azure Advisor to identify your subscriptions by name, location, and value.

✗

You can use Azure Advisor to find less expensive third-party solutions that run on Azure.

✗

You can use Azure Advisor to compare your current data center costs to running the same workloads on Azure.

Explanation

One of Azure Advisor's features is the ability to identify underutilized machines so you can save money by moving them to a smaller size.

Azure Advisor does not find less expensive third-party solutions that run on Azure.

Azure Advisor does not compare your current data center costs to running the same workloads on Azure. That functionality is provided by the TCO Calculator.

https://docs.microsoft.com/en-us/azure/advisor/advisor-overview

#28

Your organization uses Azure as its cloud provider. The organization has deployed a virtual machine and installed a SQL database on it.Who is responsible for the data that gets ingested into the database?

✗

The cloud service provider

✓

The organization using Azure

Both the cloud service provider and the organization

A third-party data management company

Explanation

In a cloud computing environment, some responsibilities are shared. However, the responsibility sometimes depends on the situation. If you're using a cloud SQL database, the cloud provider would be responsible for maintaining the actual database. However, you're still responsible for the data that gets ingested into the database. If you deployed a virtual machine and installed an SQL database on it, you'd be responsible for database patches and updates, as well as maintaining the data and information stored in the database.

A third-party data management company would not be a solution to managing data ingested into the SQL database because it might not be the most secure option for the organization.

https://docs.microsoft.com/en-us/learn/modules/describe-cloud-compute/4-describe-shared-responsibility-model?ns-enrollment-type=learningpath&ns-enrollment-id=learn.wwl.microsoft-azure-fundamentals-describe-cloud-concepts
#29

To obtain on-premises protection through Microsoft Defender for Cloud, you need to deploy Azure _____ and enable Defender for Cloud's enhanced security features.

Active Directory

Stack

Arc

ExpressRoute

Explanation

In addition to protecting Azure resources, Defender for Cloud can be used to protect hybrid cloud environments, including non-Azure servers that exist on-prem. To get this on-prem protection, though, you need to deploy Azure Arc and enable Defender for Cloud's enhanced security features.

/course/getting-started-microsoft-defender-cloud-2643/protecting-resources-with-defender-for-cloud/

#30

Your organization has moved its operations to the Azure cloud and wants to ensure that it enforces Zero Trust security principles. Which of the following is an example of how the organization can enforce the Zero Trust principle of "assume breach"?

✗ Apply sensitivity labels to all documents.

✓ Encrypt files in transit and at rest.

✗ Create a policy that states that all confidential items can not be viewed or modified.

✗ Use labels to verify user access to emails.

Explanation

When your organization enforces the Zero Trust principle of "assume breach," items are automatically encrypted because the items can only be decrypted to be viewed by authorized users.

Your sensitive data should also be protected using encryption and content marking. Encryption is a process by which data is converted into an unrecognizable format that can't be accessed unless decrypted by an authorized user or entity. When an item like an email or a file is encrypted, it:

- Is encrypted both in transit and at rest.
- Stays encrypted even if it's taken outside of the organization.

Your organization can configure encryption and content marking based on sensitivity labels. For instance, confidential and highly confidential items could automatically be encrypted and content marked using a "Confidential – for internal use only" watermark in either the footer or the heading of a document, or email. This way, assets like documents and emails are

protected automatically, based on their sensitivity. This means that your organization can ensure that unauthorized users won't be able to open these files or emails, and only authorized users can view them. Content marking also helps to reinforce best practices for users because they can easily see that the document is only meant for confidential use.

Sensitivity labels facilitate the "verify explicitly" Zero Trust principle for your organization because they provide additional data points that can be used to make security decisions about access to resources. Your organization can automatically apply labels to flag items, such as files and emails that contain sensitive information.

You can enforce the "verify explicitly" principle of Zero Trust with labels because labels are used to verify whether users can access items. your organization should also prevent data loss. This can occur through risky behavior or accidental oversharing of sensitive information. Your organization needs to be able to govern and prevent inappropriate transfer and sharing of sensitive data. To achieve this, you can create data loss prevention policies. These are policies that describe what actions should be taken to prevent data from being shared or accessed in an unauthorized manner.

For example, your organization can create a policy that states that all confidential items, such as emails or files, shouldn't be viewed or modified by unauthorized users. The policy could consist of the following general configuration details:

Conditions - You can specify a condition to state that this policy should apply to all items such as emails and documents that have the confidential sensitivity label.

Actions - You can describe actions to take if the condition is matched. For example, blocking users from receiving confidential items like documents or emails, or sending confidential items, or only blocking people from outside of the organization from receiving or viewing confidential items.

Your organization's cloud security tool will then automatically enforce this policy. For instance, suppose a user accidentally attempts to insert a document labeled "confidential" into an email message going to a group that includes some external users. The policy would come into effect, and block the user from sending the email until they've either removed the document, or ensured that no more unauthorized users are in the list of recipients for the message. This way, your organization can enforce the Zero Trust principle "use least privilege access" because only authorized users can access items.

https://docs.microsoft.com/en-us/learn/modules/zero-trust-data/protect-your-data-prevent-loss
#31

You are consulting a friend, Sarah, who is the owner of three pizza restaurants. She wants to launch a website to sell pizzas on Microsoft Azure but does not have any IT experience. She wants to avoid managing any Azure resources and is not comfortable designing or managing a web application to sell pizzas. Which cloud deployment model should she use to launch her restaurant website?


Functions-as-a-Service (FaaS)


Infrastructure-as-a Service (IaaS)


Platform-as-a-Service (PaaS)


Software-as-a-Service (SaaS)

Explanation

For SaaS solutions, a vendor provides the application and abstracts customers from the underlying components. SaaS solutions push responsibility onto the cloud provider, Microsoft Azure. This is because the cloud provider provides the application to the customer as a service. This removes the customer's responsibility for ANY underlying components. That said, the customer is still responsible for ensuring that its data is properly classified. The provider and customer will share the responsibility for managing users and end-point devices.

 /course/what-is-cloud-computing-introductory/cloud-service-models/

#32

Your company is growing rapidly. Demand for your product far outstrips your data center's capacity. You are thinking about migrating some of your production workloads to Azure. Which calculator would you use to estimate the cost?


TCO calculator


Pricing calculator

✗
Cloud economics

✗
Azure Hybrid Benefit

Explanation

The Azure Total Cost of Ownership (TCO) calculator is used to estimate your workloads and would be an appropriate cost calculation tool to use before migrating some of your production workloads to Azure.

Azure's Pricing Calculator is used when you want to get an Azure product pricing estimate.

The Azure Hybrid Benefit is for Windows Server and SQL Server, and the Cloud Economics tool is used to draft business cases.

https://azure.microsoft.com/en-us/pricing/tco/calculator/

#33

You are an Azure administrator for an organization. You want to find out whether there is a problem with one of the virtual machines (VMs) in your environment.Which monitoring feature should you use?

✗
Email alerts

✗
Metrics

✗
Application Insights

✓
Resource Health

Explanation

A resource is a specific instance of an Azure service, such as a virtual machine, web app, or SQL Database. Resource Health relies on signals from different Azure services to assess whether a resource is healthy. If a resource is unhealthy, Resource Health analyzes additional

information to determine the source of the problem. It also reports on actions that Microsoft is taking to fix the problem and identifies things that you can do to address it.

Alerts are used to monitor resource and application performance rather than the health of a specific VM. Alerts consist of the following types:

- Metric alerts Metric alerts evaluate resource metrics at regular intervals. Metrics can be platform metrics, custom metrics, logs from Azure Monitor converted to metrics or Application Insights metrics. Metric alerts have several additional features, such as the ability to apply multiple conditions and dynamic thresholds.
- Log alerts Log alerts allow users to use a Log Analytics query to evaluate resource logs at a predefined frequency.
- Activity log alerts Activity log alerts are triggered when a new activity log event occurs that matches the defined conditions.
- Smart detection alerts Smart detection on an Application Insights resource automatically warns you of potential performance problems and failure anomalies in your web application. You can migrate smart detection on your Application Insights resource to create alert rules for the different smart detection modules.

Application Insights is a feature of Azure Monitor that provides extensible application performance management (APM) and monitoring for live web apps, not VMs. Developers and DevOps professionals can use Application Insights to:

- Automatically detect performance anomalies.
- Help diagnose issues by using powerful analytics tools.
- See what users actually do with apps.
- Help continuously improve app performance and usability.

Application Insights:

- Supports a wide variety of platforms, including .NET, Node.js, Java, and Python.
- Works for apps hosted on-premises, hybrid, or on any public cloud.
- Integrates with DevOps processes.
- Has connection points to many development tools.
- Can monitor and analyze telemetry from mobile apps by integrating with Visual Studio App Center

https://docs.microsoft.com/en-us/azure/service-health/resource-health-overview

#34

A(n) _____ sends encrypted traffic between an Azure virtual network and an on-premises location over the public Internet.

✗
Local VPN

✗
Active Directory

✓
VPN Gateway

✗
Express Route

Explanation

VPN Gateway sends encrypted traffic between an Azure virtual network and an on-premises location over the public Internet. You can also use VPN Gateway to send encrypted traffic between Azure virtual networks over the Microsoft network. A VPN gateway is a specific type of virtual network gateway. Each virtual network can have only one VPN gateway. However, you can create multiple connections to the same VPN gateway. When you create multiple connections to the same VPN gateway, all VPN tunnels share the available gateway bandwidth.

/course/designing-azure-virtual-desktop-user-identities-profiles-2151/recommending-a-solution-for-network-connectivity/
#35

In the event of a regional service failure in the Azure cloud, a company wants to ensure its cloud infrastructure can quickly replicate its cloud resources to an unaffected region. Which feature of cloud computing benefit should the company implement to achieve this requirement?

✓
disaster recovery

✗
elasticity

✗
scalability

✗

agility

Explanation

Disaster recovery not only means having reliable backups of important data, but it also means that the cloud infrastructure can replicate your application's resources in an unaffected region so that your data is safe and your application availability is not impacted.

/course/what-is-cloud-computing-introductory/key-cloud-concepts/

#36

Azure _____ virtual machines can be up to 90% cheaper than regular VMs, but can be removed with only 30 seconds' notice.

✓

spot

✗

temporary

✗

ephemeral

✗

non-reserved

Explanation

Another way to reduce costs is to use Azure spot virtual machines. These VMs can be up to 90% cheaper, but there's a catch. A spot VM can be removed with only 30 seconds' notice.

/course/managing-azure-costs-2569/reducing-costs/

#37

_____ allow you to define a repeatable set of governance tools and standard Azure resources that your organization requires.

✓

Azure Blueprints

✗

Azure Policy

Azure DevOps

Azure Resource Manager (ARM) templates

Explanation

Instead of having to configure features like Azure Policy for each new subscription, with Azure Blueprints, you can define a repeatable set of governance tools and standard Azure resources that your organization requires. In this way, development teams can rapidly build and deploy new environments with the knowledge that they're building within organizational compliance with a set of built-in components that speed the development and deployment phases.

Azure Blueprints orchestrates the deployment of various resource templates and other artifacts, such as:

- Role assignments
- Policy assignments
- Azure Resource Manager templates
- Resource groups

Azure Policy helps to enforce organizational standards and to assess compliance at scale, but it does not allow you to define repeatable governance tools and Azure resources. An azure policy is an access system that provided default allow or deny on new or existing resources to which the policy is applied. But the Azure blueprint is a package to create and govern the implementation of Azure services, security, and design.

Azure DevOps provides developer services for allowing teams to plan work, collaborate on code development, and build and deploy applications. It is not a feature that allows you to define governance tools or Azure resources.

An Azure Resource Manager template (ARM) allows you to implement infrastructure as code for Azure solutions. The template is a JavaScript Object Notation (JSON) file that defines the infrastructure and configuration for your project. 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. In the template, you specify the resources to deploy and the properties for those resources.

https://docs.microsoft.com/en-us/learn/modules/build-cloud-governance-strategy-azure/8-govern-subscriptions-azure-blueprints
#38

Which Azure storage account type does Microsoft recommend for applications requiring only block or append blob storage?

✗
General-purpose

✓
Blob

✗
General-blob

✗
Block

Explanation

There are only two types of storage accounts within Microsoft Azure: general-purpose and blob. If you require access to Azure Storage services, create a general-purpose storage account. If you need to store unstructured data as blobs (objects), create a blob storage account. While both types of storage accounts are similar, Microsoft recommends using blob storage accounts for applications requiring only block or append blob storage.

https://azure.microsoft.com/en-us/documentation/articles/storage-introduction/#introducing-the-azure-storage-services
#39

Which Azure Big Data solution is a limitless analytics service that brings together enterprise data warehousing and Big Data analytics?

✗
Azure Analysis Services

✓
Azure Synapse Analytics

✗

Azure Data Lake Analytics

Azure Databricks

Explanation

Azure Synapse Analytics is a limitless analytics service that brings together enterprise data warehousing and Big Data analytics.

Azure Analysis Services is enterprise analytics as a service.

Azure Data Lake Analytics is a fully managed on-demand pay-per-job analytics service with enterprise-grade security, auditing, and support.

Azure Databricks is an Apache Spark data analytics platform

https://docs.microsoft.com/en-us/azure/synapse-analytics/

#40

You need to view and update the Microsoft Defender for Cloud permissions. To which role should you be assigned?

Security Reader

Security Assessment Contributor

Security Admin

Security Operator

Explanation

Security Admin views and updates permissions for Microsoft Defender for Cloud. Same permissions as the Security Reader role and can also update the security policy and dismiss alerts and recommendations.

Security Reader views permissions for Microsoft Defender for Cloud. Can view recommendations, alerts, a security policy, and security states, but cannot make changes.

Security Assessment Contributor lets you push assessments to Microsoft Defender for Cloud.

Security Operators can manage alerts and have global read-only access to security-related features, including all information in Microsoft 365 security center, Azure Active Directory, Identity Protection, Privileged Identity Management, and Office 365 Security & Compliance Center.

https://docs.microsoft.com/en-us/azure/active-directory/roles/permissions-reference#security-operator

#41

Which statement identifies a reason an organization may choose a public cloud model over a private or a hybrid model? (Choose two.)

✗ The organization wants the flexibility to manage which resources are local versus in the cloud.

✓ There are no up-front investments in hardware.

✓ The public cloud model provides geographic dispersity.

✗ Regulatory compliance/certification issues such as PCI or HIPAA compliance may require a private, certified, on-premises data center.

Explanation

There are several reasons why an organization would use a public cloud model. First, public clouds provide service consumption through an on-demand or subscription model. Second, there are no up-front investments in hardware. Additionally, the cloud service provider is held responsible for all management and maintenance of the system. Third, an organization can automate quickly and provision infrastructure resources using a web portal, using scripts, or via automation. Fourth, the public cloud model provides geographic dispersity, whereby an organization can store data near their users or in desired locations without having to maintain their own data centers. Fifth, there are reduced hardware maintenance costs because the service provider is responsible for hardware maintenance. In a hybrid

model, an organization has the flexibility to manage which resources are local versus in the cloud. The private model is useful when an organization has regulatory compliance/certification issues that may require a private, certified, on-premises data center.

/course/what-is-cloud-computing-introductory/cloud-service-models/

#42

Azure App Service is considered which of the following cloud service models?

✗ Function-as-a-Service (FaaS)

✓ Platform-as-a-Service (PaaS)

✗ Infrastructure-as-a-Service (IaaS)

✗ Software-as-a-Service (SaaS)

Explanation

When you need to host a website on Azure, there are lots of potential choices. But the most popular way to do it is to use Azure App Service. Why? Well, because App Service tries to make deploying a web application as easy as possible while still providing lots of flexibility and features. It's considered to be a platform-as-a-service rather than infrastructure-as-a-service because it manages the underlying infrastructure for you.

/course/introduction-azure-app-service-2185/overview/

#43

Which service can recommend cost optimization methods based on your usage of Azure virtual machines?

✓ Azure Advisor

✗ Azure Monitor

✗

Azure Policy

✕
Azure Application Insights

Explanation

Advisor will review your virtual machine usage over the last 30 days and determine if you could save money by purchasing an Azure reservation. Advisor will show you the regions and sizes where you potentially have the most savings and will show you the estimated savings from purchasing reservations.

/course/optimizing-azure-costs/optimize-compute-costs/
Covered in this lecture
Optimize Compute Costs
Course:Optimizing Azure Costs

11m

#44

Which statements represent key advantages of an operating expenditure model through cloud computing instead of on-premises environments? (Choose 3 answers)

✕
Operating expenditure items are utilized over the course of multiple years.

✓
Operating expenditure items are inherently flexible.

✓
The operating expenditure model offers companies significantly more flexibility and agility.

✓
Using the operating expenditure model, deployment and lead-time are relatively short.

Explanation

One of the advantages of migrating to the cloud is that you can use opex instead of capex. Operating expenditures are ongoing costs of doing business. Capital expenditures refer to long-term business investments expected to be utilized for multiple years.

/course/what-is-cloud-computing-introductory/what-is-cloud-computing-1/

#45

As a cloud-computing expert at a local IT consulting firm, you have been asked by your manager to travel to a potential new client's site to give a presentation on the different types of cloud computing models with the hope that your firm can earn the account. You learn that the prospective account manufactures candy. The CEO is nervous about moving to the cloud and wants to migrate slowly because of the upcoming Halloween candy sales over the next three months. Yet she wants to be able to handle the upcoming surge in orders flawlessly with reduced capital expenditures (capex). Which model should you focus on in your presentation?

✗
private

✗
public

✗
matrix

✓
hybrid

Explanation

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. When computing and processing demand fluctuates, hybrid cloud computing gives businesses the ability to seamlessly scale their on-premises infrastructure up to the public cloud to handle any overflow--without giving third-party data centers access to the entirety of their data. Using a hybrid cloud helps eliminate the need to make up-front capital expenditures to handle short-term spikes in demand. It also has the flexibility to manage which resources are local versus in the cloud. Companies pay only for resources they temporarily use instead of having to purchase, program, and maintain additional resources and equipment that could remain idle over long periods of time. Finally, transitioning to the cloud does not have to be overwhelming because the organization can migrate gradually—phasing in workloads over time.

/course/what-is-cloud-computing-introductory/cloud-service-models/

#46

Considering Azure's Shared Responsibility Model, what are Azure customers' security responsibilities in a PaaS service?

In a PaaS solution, Microsoft Azure is completely responsible for securing customer applications and user directory infrastructure.

In a PaaS solution, Azure customers are completely responsible for securing their applications. Microsoft Azure is completely responsible for user directory infrastructure.

In a PaaS solution, Azure customers are partially responsible for securing their applications and user directory infrastructure.

In a PaaS solution, Azure customers are completely responsible for securing their applications and user directory infrastructure.

Explanation

The PaaS service provider is responsible for managing and securing the network controls. The customer, however, is still at least partially responsible for securing and managing its applications, user identities, and data. In a SaaS solution, the cloud service provider provides the application to the customer as a service. Additionally, in the SaaS platform, the provider and customer will share the responsibility for managing users and end-point devices. In an IaaS solution, the cloud service provider is responsible for managing the hypervisor.

 /course/what-is-cloud-computing-introductory/cloud-service-models/

#47

You are an Azure administrator for a company with the main office in Seattle, and satellite offices in New York and Chicago.Management has required syncing files shared between offices so that all locations have access to the most recent file versions.You recommend Azure File Sync.Which capability of File Sync would you identify as satisfying the requirement?

A local Windows Server can be provisioned as part of your Azure File Sync deployment so that changes made to a server in one office automatically sync to the servers in all other offices.

The ability to use Azure Backup to back up on-premises data so that file metadata can be restored immediately and data recalled as needed for rapid disaster recovery.

The ability to move applications that require access between Azure and on-premises systems and provide write access to the same data across Windows Servers and Azure Files.

Only recently accessed data located on local servers will be accessed and non-used data moves to Azure through Cloud Tiering.

Explanation

Azure File Sync is ideal for distributed access scenarios. For each of your offices, you can provision a local Windows Server as part of your Azure File Sync deployment. Changes made to a server in one office automatically sync to the servers in all other offices.

 https://learn.microsoft.com/en-us/azure/storage/file-sync/file-sync-introduction

#48

Which statement is true regarding the cost of Virtual machines?

The cost is the same irrespective of the region in which the VM is provisioned.

The cost of virtual machines differs from region to region.

As long as you are using Azure, you can be assured that the cost will be the same.

You should not worry about the cost of the VMs and provision them in any possible region.

Explanation

One key fact to note is that each region can have a different price for the same Virtual machines. Yes, your one design consideration is to provision Virtual machines which host applications as close as possible to the end-user, but you also need to take note of the area in

which it is provisioned. It's best to use the pricing calculator provided by Microsoft to get an indicative cost of hosting a virtual machine in a particular region.

https://azure.microsoft.com/en-us/pricing/calculator

Covered in this lecture
Section One Introduction
Course:Getting Started with Azure Virtual Machines

1m

#49

Which of the following statements about resource locks in Microsoft Azure is true?

✓
If two different administrators add locks to the same resource, then the most restrictive lock is applied.

✗
A delete lock is more restrictive than a read-only lock.

✗
A locked resource can only be deleted by an administrator.

✗
If you want to apply a lock to all of the resources in a resource group, you have to apply the lock to each resource individually.

Explanation

A read-only lock prevents a resource from being deleted or modified, so it's more restrictive than a delete lock. If two different administrators add locks to the same resource, then the most restrictive lock is applied. Even an administrator can't delete a locked resource, so they have to delete the lock (or locks) before they can delete the resource. If you want to apply a lock to all of the resources in a resource group, you only have to apply the lock to the resource group itself, and all of the resources in it will inherit the lock. You can also do this at the subscription level for all resources in a subscription.

/course/az-900-exam-prep-additional-topics/additional-topics/

#50

In regard to cloud computing, what does the term "utility-based metering" mean?

✓ The ability to pay only for what you use

✗ The ability to add new compute, storage or networking resources almost instantly

✗ The ability to run virtual machines on the same hardware

✗ The ability to pay lower costs for storage and compute resources on the cloud

Explanation

With many cloud services, you only pay for what you use. So what do I mean by this? If you only have one server, or an instance, running for two hours, and then shut it down, then you only pay for that two hours worth of compute resource and that's it. Think of it like this: in your house, you only pay for electricity when you used it, and to help keep the costs down, you turn off the lights when you go out. So, it's the same billing process. You only pay for resources when you use them.

/course/what-is-cloud-computing-introductory/key-cloud-concepts/

Covered in this lecture
Key Cloud Concepts
Course:What Is Cloud Computing?

5m