Microsoft Azure Fundamentals [AZ-900] - Practice Set 2 - Results

Return to review
Attempt 1
All knowledge areas
All questions
Question 1: **Correct**
You have a virtual machine named myVM that runs Windows Server. myVM is in the Australia East Azure region.

Which Azure service should you use from the Azure portal to view service failure notifications that can affect the availability of myVM?

- **Azure Monitor**

  (Correct)

- **Azure Advanced Threat Protection (ATP)**
- **Azure Event Hubs**
- **Azure Advisor**

Explanation
Keywords: *service availability tracking, notifications => Azure Monitor*

Correct answer is option ***Azure Monitor***

Azure Monitor maximizes the availability and performance of your applications by delivering a comprehensive solution for collecting, analyzing, and acting on telemetry from your cloud and on-premises environments.
Reference: https://docs.microsoft.com/en-us/azure/azure-monitor/overview

Other options are not correct.

Option ***Azure Advisor*** is incorrect - *Azure Advisor Hub* provides best practices recommendations to optimize Azure resources.
Reference: https://docs.microsoft.com/en-us/azure/advisor/advisor-get-started

Option ***Azure Advanced Threat Protection (ATP)*** is incorrect - *Azure ATP* is capable of detecting known malicious attacks and techniques, security issues, and risks against your network.
Reference: https://docs.microsoft.com/en-us/azure-advanced-threat-protection/what-is

Option ***Azure Event Hubs*** is incorrect - *Event Hubs* is a real-time data ingestion service, that stream millions of events per second from any source to build dynamic data pipelines and immediately respond to business challenges.
Reference: https://azure.microsoft.com/en-us/services/event-hubs

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Question 2: **Correct**

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1. Exam notes:
2. - This question requires you to evaluate the text inside [ ] to determine if
   it is correct
3. - Select "No change needed" if the above statement is correct, otherwise
   select the correct answer.
```

[*Pricing calculator*] can be used to estimate cost savings when migrating to Azure?

- **Total Cost of Ownership Calculator (TCO)**

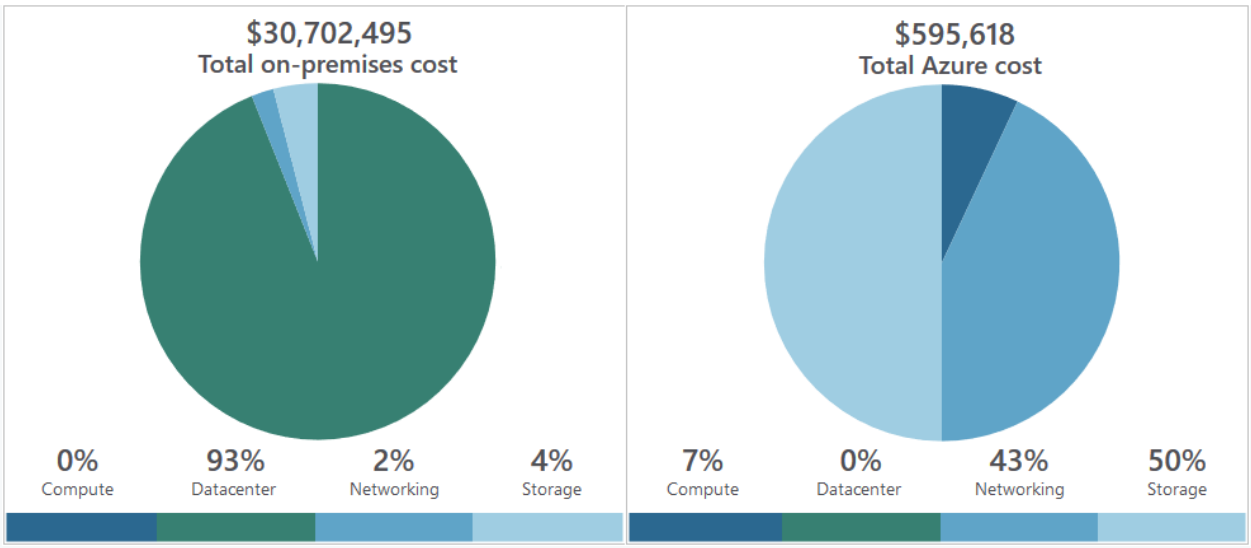
  (Correct)

- **No change needed**
- **Budgets**
- **Azure Cost Management**

Explanation
Keywords: *migration to cloud, estimate, cost-saving => TCO*

Correct answer is option ***Total Cost of Ownership Calculator (TCO)***

The Total Cost of Ownership Calculator (TCO) is a tool that you use to estimate cost savings you can realize by migrating to Azure. The TCO calculator generates a detailed report based on the details you enter and the adjustments you make. The report allows you to compare the costs of your on-premises infrastructure with the costs using Azure products and services to host your infrastructure in the cloud.



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

Other options are not correct.

Option ***No change needed*** i.e., ***Pricing calculator*** is incorrect - *Pricing Calculator* is a tool that helps you estimate the cost of Azure products. You choose the Azure products you need and configure them according to your specific requirements. Azure then provides a detailed estimate of the costs associated with your selections and configurations.
Reference: https://azure.microsoft.com/en-us/pricing/calculator/

Option ***Azure Cost Management*** is incorrect - *Cost Management* provides a set of tools for monitoring, allocating, and optimizing your Azure costs. Cost management can be used once you started using the Azure cloud, to evaluate the cost of resources/services you are using.
Reference: https://docs.microsoft.com/en-us/azure/cost-management-billing/cost-management-billing-overview

Option ***Budgets*** is incorrect - *Budgets* help you to get information about spending on different resources and services to proactively manage costs and to monitor how spending progresses over time. When the budget thresholds you've created are exceeded, only notifications are triggered. None of your resources are affected and your consumption isn't stopped.
Reference: https://docs.microsoft.com/en-us/azure/cost-management-billing/costs/tutorial-acm-create-budgets

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Question 3: **Correct**
There has been an attack on your public-facing website, and the application's resources have been overwhelmed and exhausted, and are now unavailable to users.

What service should you use to prevent this type of attack in the future?

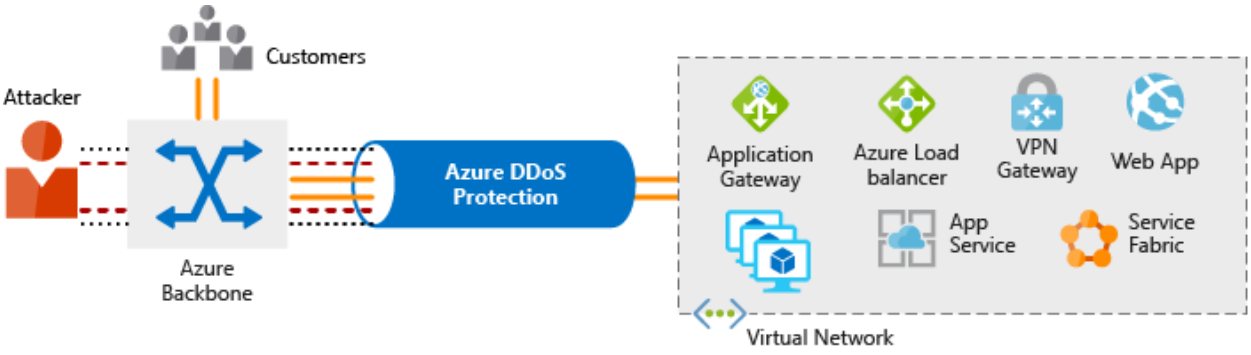
- **Network Security Group**
- **Azure Firewall**
- **Application Gateway**
- **DDoS protection**

(Correct)

Explanation
Keywords: *web site attack, overloaded traffic => DDoS protection*

Correct answer is option ***DDoS protection***

Azure Distributed Denial of Service (DDoS) – DDoS attacks attempt to overwhelm and exhaust an application's resources, making the application slow or unresponsive. Azure DDoS protection, combined with application design best practices, provide defense against DDoS attacks.
Reference: https://docs.microsoft.com/en-us/azure/virtual-network/ddos-protection-overview



Reference: https://docs.microsoft.com/en-us/learn/modules/secure-network-connectivity/5-explore-azure-distributed-denial-service-protection

Other options are not correct.

Option ***Azure Firewall*** is incorrect - *Azure Firewall* is a network security service that protects your Azure Virtual Network resources by adding allow or deny rules based on different conditions. Azure DDoS service will save your services from DDoS attack, and later you can block attacker IPs in Firewall rule.
Reference: https://docs.microsoft.com/en-us/azure/firewall/overview

Option ***Application Gateway*** is incorrect - *Azure Application Gateway* is a load balancer that enables you to manage traffic to your web applications. It does not filter, it forwards traffic to resources, so it can not help in case of DDoS attack.
Reference: https://docs.microsoft.com/en-us/azure/application-gateway/how-application-gateway-works

Option ***Network Security Group*** is incorrect - *Network Security Groups (NSG)* allow you to filter network traffic to and from Azure resources in an Azure virtual network.
DDoS attacks should be controlled before entering to a Virtual network, by using Azure DDoS Protection.
Reference: https://docs.microsoft.com/en-us/azure/virtual-network/security-overview#network-security-groups

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Question 4: **Correct**

```
1. Exam notes:
2. - Drag the appropriate term from the row on the top to its description on the
   bottom.
3. - Udemy does not support drag & drop, but in the actual exam, you will be
   allowed.
4. - Each correct selection is worth one point in the main exam.
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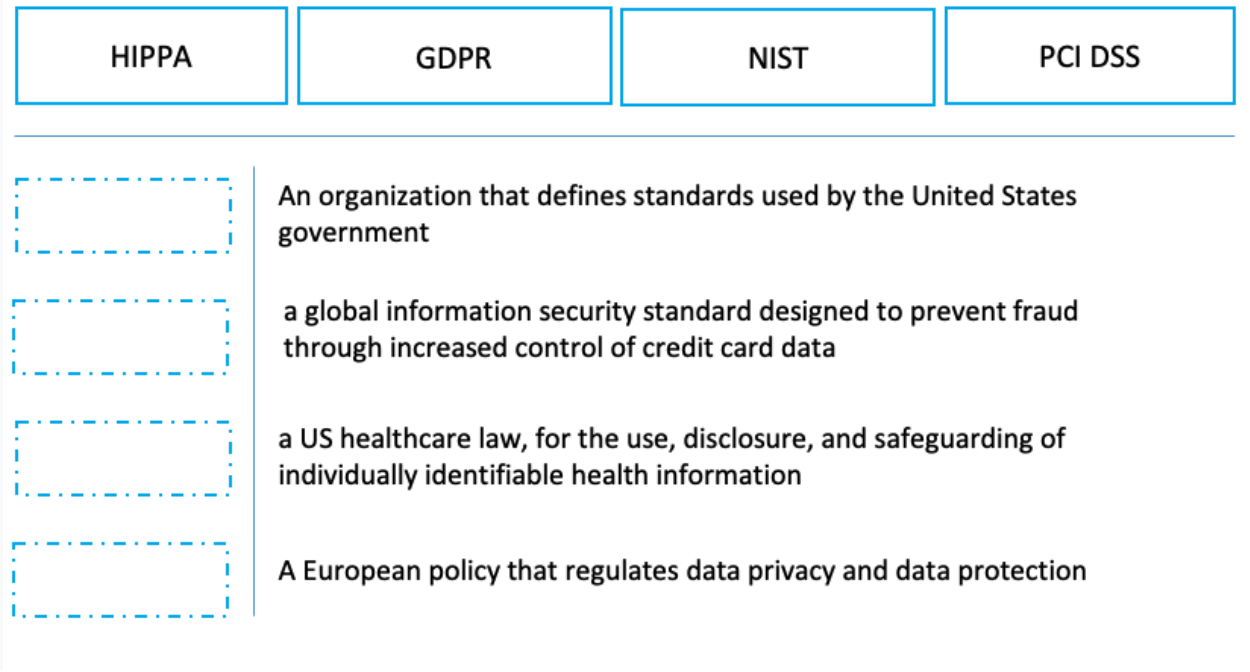

- ***GDPR*** **- An organization that defines standards used by the United States government**
  NIST **- a US healthcare law, for the use, disclosure, and safeguarding of individually identifiable health information**
  PCI DSS **- A European policy that regulates data privacy and data protection**

***HIPPA* - a global information security standard designed to prevent fraud through increased control of credit card data**

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  ***HIPPA* - a US healthcare law, for the use, disclosure, and safeguarding of individually identifiable health information**

(Correct)

Explanation
Correct answer is *option*
GDPR *- A European policy that regulates data privacy and data protection*
NIST *- An organization that defines standards used by the United States government*
PCI DSS *- a global information security standard designed to prevent fraud through increased control of credit card data*
HIPPA *- a US healthcare law, for the use, disclosure, and safeguarding of individually identifiable health information*

Detailed explanation:

PCI DSS - *The Payment Card Industry (PCI) Data Security Standards (DSS)* is a global information security standard designed to prevent fraud through increased control of credit card data. Organizations of all sizes must follow PCI DSS standards if they accept payment cards from the five major credit card brands - Visa, MasterCard, and many more.

Reference: https://docs.microsoft.com/en-us/microsoft-365/compliance/offering-pci-dss

GDPR - *The General Data Protection Regulation (GDPR)* are rules for organizations that offer goods and services to people in the European Union (EU), or that collect and analyze data for EU residents no matter where you or your enterprise are located.
Reference: https://docs.microsoft.com/en-us/microsoft-365/compliance/gdpr

HIPPA - *The Health Insurance Portability and Accountability Act (HIPAA)* is a US healthcare law that establishes requirements for the use, disclosure, and safeguarding of individually identifiable health information.
Reference: https://docs.microsoft.com/en-us/microsoft-365/compliance/offering-hipaa-hitech

Other options are not correct.

Question 5: **Incorrect**

```
1. Exam note:
2. - Each correct selection is worth one point in the main exam.
```

Which features do Virtual Machine Scale Sets provide?

Select two correct options.

- ☑ **Firewall**

  (Incorrect)

- ☐ **Content Delivery Network**
- ☑ **Autoscaling of Virtual Machines**

  (Correct)

- ☐ **Automatic installation of supporting apps and deployment of custom code**
- ☑ **Load balancing between Virtual Machines**

  (Correct)

Explanation
Keywords: *Scale Sets => Autoscaling, Load Balancing*

Correct answers are:
- Option ***Load balancing between Virtual Machines***
- Option ***Autoscaling of Virtual Machines***

Azure Virtual Machine Scale Sets lets 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. Scale sets provide high availability to your applications and allow you to centrally manage, configure, and update a large number of VMs.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/overview

Scale Sets does not provide the following functionality; hence these answers are incorrect:

- Content Delivery Network
- Automatic installation of supporting apps and deployment of custom code
- Firewall

Question 6: **Correct**

```
1. Exam note:
2. - Each correct selection is worth one point in the main exam.
```

Select two correct statements for Azure cost management.

- ☐ **By Creating additional Resource Groups in an Azure Subscription, additional costs are incurred**
- ☑ **When Azure virtual machine is stopped, you continue to pay storage costs associated with the Virtual Machine**

(Correct)

- ☑ **By copying several GBs of data from Azure to an on-premises network over a VPN, additional data transfer costs are incurred**

(Correct)

- ☐ **If you create two Virtual Machines of B2B size, each virtual machine will always generate the same cost**
- ☐ **By copying several GBs of data to Azure from an on-premises network over a VPN, additional data transfer costs are incurred**

Explanation
Correct answers are

- Option ***By copying several GBs of data from Azure to an on-premises network over a VPN, additional data transfer costs are incurred:*** *All data transfer "in" Azure is free, any data transfer "out" from Azure is chargeable.*

- Option ***When Azure virtual machine is stopped, you continue to pay storage costs associated with the Virtual Machine:*** *You will still be paying for procured compute, storage, and network (e.g. public IPs) resources, even if VM is stopped.*

Other options are incorrect.

Option ***By Creating Additional Resource Groups in an Azure Subscription, additional costs are incurred*** is incorrect - Azure does not charge for Resource groups.

Option ***By copying several GBs of data to Azure from an on-premises network over a VPN, additional data transfer costs are incurred*** is incorrect - *All data transfer "in" Azure is free, any data transfer "out" from Azure is chargeable.*

Option ***If you create two Virtual Machines of B2B size, each virtual machine will always generate the same cost is*** incorrect - The pricing of Azure resources may vary from region to region, so this statement is incorrect.

Question 7: **Incorrect**
Your company plans to implement an Azure environment. The company has 10 departments, and 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?

- **Management Groups**
- **Resource Groups**
- **Resource Manager**

  (Incorrect)

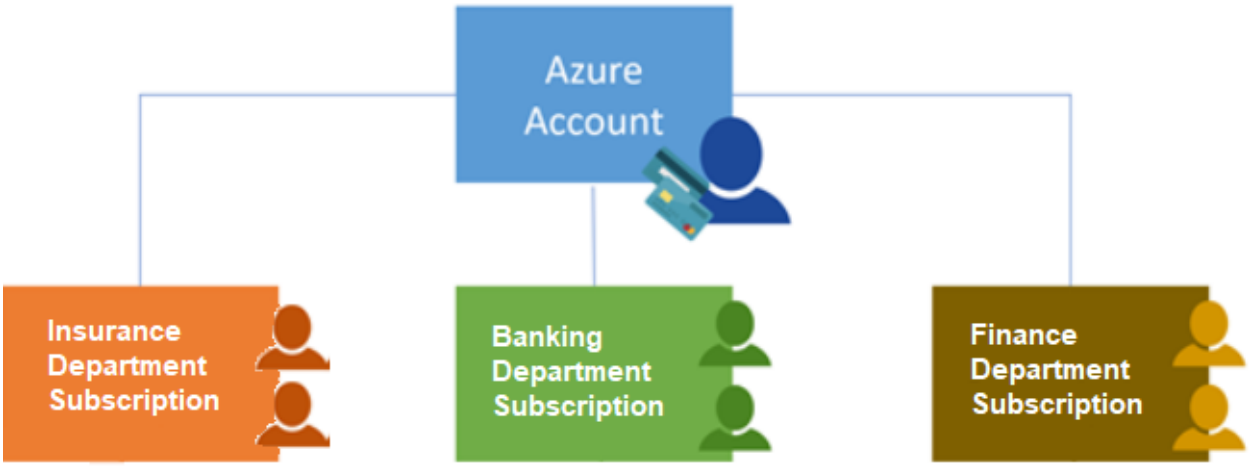
- **Subscription**

  (Correct)

Explanation
Keywords: *different departments, different payment methods => Multiple Subscriptions*

Correct answer is option ***Subscription***

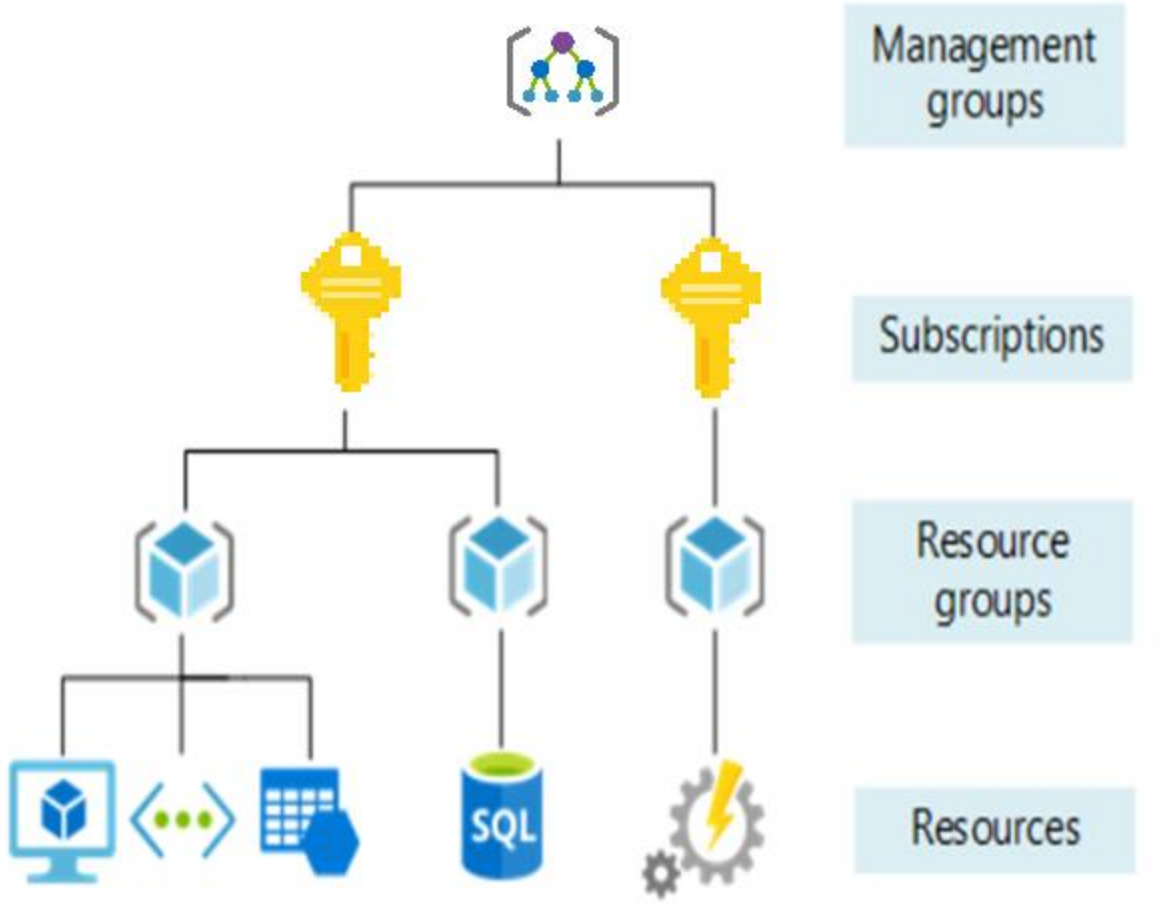
Azure subscription is a logical unit of Azure services that links to an Azure account. You can have multiple subscriptions, one for each department. You can use department subscriptions to define boundaries around Azure products, services, and resources.
Reference: https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/decision-guides/subscriptions/



Other options are not correct.

Option ***Resource Groups*** is incorrect - *Resource Groups* is a unit of management for resources in Azure, allows you to logically group Azure Resources together. You can not have a different payment option, one for each department, using Resource groups.
Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview#resource-groups

Option ***Management Groups*** is incorrect - *Management groups* are containers, to manage multiple subscriptions. You should create multiple subscriptions, one for each department, and then logically group subscriptions in Management groups, based on the company policy and compliance.
Reference: https://docs.microsoft.com/en-us/azure/governance/management-groups/overview



Reference: https://docs.microsoft.com/en-us/learn/modules/examine-azure-subscriptions/5-explore-management-groups

Option ***Resource Manager*** is incorrect - *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, you can not manage payments using Resource manager.
Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview

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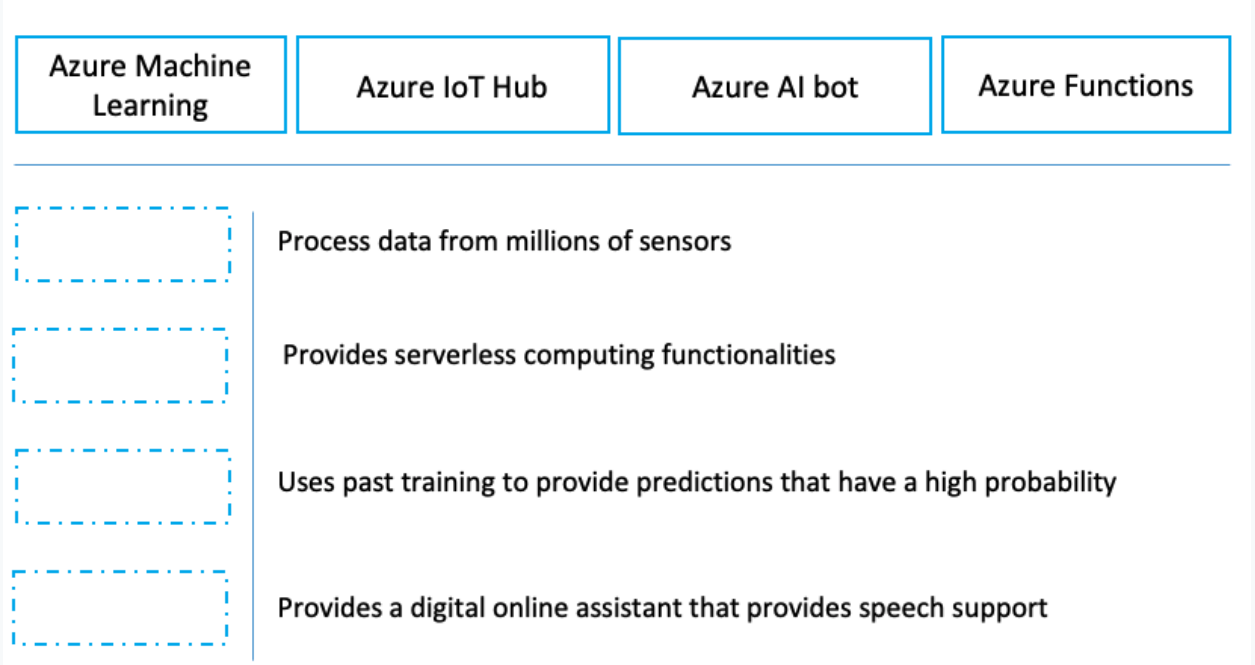
Question 8: **Correct**

```
Exam notes:
- Drag the appropriate term from the row on the top to its description on the bottom.
- Udemy does not support drag & drop, but in the actual exam, you will be allowed.
- Each correct selection is worth one point in the main exam.
```



- ***Azure Machine Learning*** **- Provides serverless computing functionalities**
  Azure IoT Hub **- Uses past training to provide predictions that have a high probability**
  Azure AI bot **- Provides a digital online assistant that provides speech support**
  Azure Functions **- Process data from millions of sensors**
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  Azure AI bot **- Provides a digital online assistant that provides speech support**
  Azure Functions **- Provides serverless computing functionalities**

(Correct)

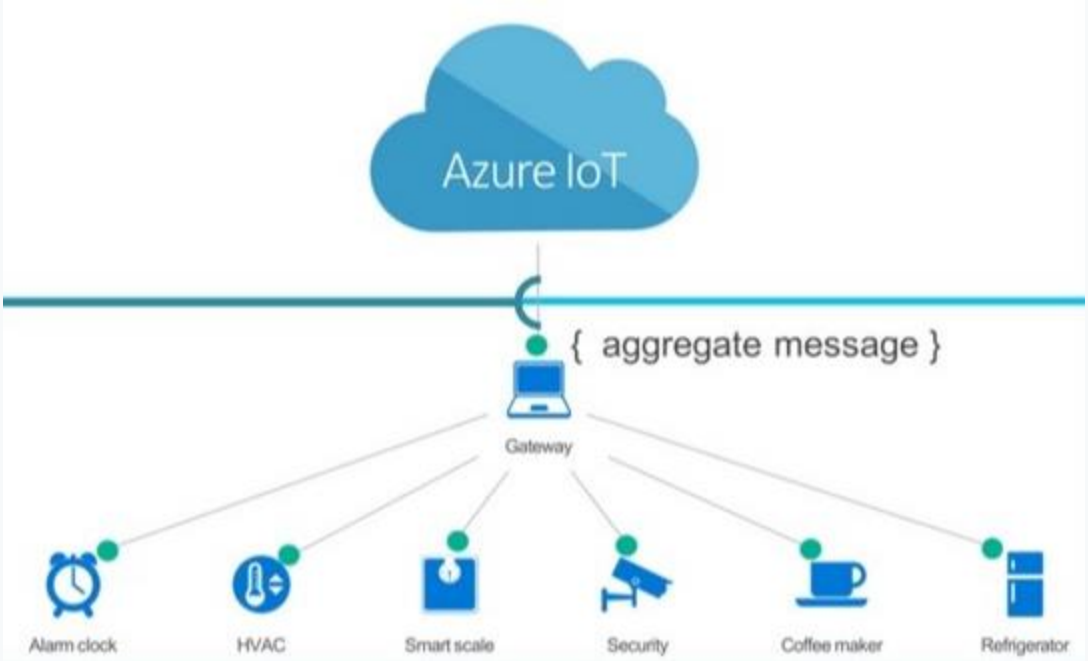
Explanation
Correct answer is *option*
Azure Machine Learning *- Uses past training to provide predictions that have a high probability*
Azure IoT Hub *- Process data from millions of sensors*
Azure AI bot *- Provides a digital online assistant that provides speech support*
Azure Functions *- Provides serverless computing functionalities*

Detailed explanation:

Function as a Service (FaaS) or Azure function is a serverless implementation, provides a runtime environment to execute code, written in any language the user is comfortable. Based on the language chosen, an appropriate platform is provided to users for bringing their own code. Functions are ideal when you're only concerned with the code running your service and not the underlying platform or infrastructure.
Reference: https://azure.microsoft.com/en-us/services/functions/

Azure Machine Learning service provides a cloud-based environment that can be used to develop, train, test, deploy, manage, and track machine learning models. The Azure Machine Learning service can auto-generate a model and auto-tune it for you.
Reference: https://azure.microsoft.com/en-in/services/machine-learning/

Azure IoT hub is a managed **IoT service** which is hosted in the cloud. It allows bi-directional communication between IoT applications and the devices it manages. This cloud-to-device connectivity means that you can receive data from your devices, but you can also send commands and policies back to the devices.
Reference: https://azure.microsoft.com/en-in/services/iot-hub/



Other options are not correct.

Question 9: **Incorrect**

```
1. Exam notes:
2. - This question requires you to select the correct option from the dropdown.
3. - Udemy does not support dropdown selection, but in the actual exam, you will
   be allowed to use dropdown.
```

To enforce resource tagging, so the billing can be managed, you will use [ ]

- Azure Blueprints
- Compliance Manager
- Azure Policy
- Azure Templates

- **Azure Policy**

  (Correct)

- **Azure Templates**
- **Azure Blueprints**

  (Incorrect)

- **Compliance Manager**

Explanation
Keywords: *enforce rules (e.g., tagging) => apply Policy*

Correct answer is option ***Azure Policy***

Azure Policy can be used to enforce tagging on resources. You can create a policy for tagging, and apply this policy either on Subscription or Resource group so that any resource created under the resource group will follow the policy for tagging.
Reference: https://docs.microsoft.com/en-us/azure/governance/policy/overview

Other options are not correct.

Option ***Azure Templates*** is incorrect - A*zure Resource Manager (ARM) Templates* are JSON files that define the infrastructure and configuration for your project. In the template, you specify the resources to deploy and the properties for those resources. These properties should comply with all policies applicable to resources.
Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/overview

Option ***Azure Blueprints*** is incorrect - *Azure Blueprints* enable cloud architects to define a repeatable set of Azure resources that implement and adhere to an organization's standards, patterns, and requirements. You can create a policy to enforce tagging, and use Blueprint to make sure that policy is assigned to subscription/resource group/resources.
Reference: https://docs.microsoft.com/en-us/azure/governance/blueprints/overview

Option ***Compliance Manager*** is incorrect - *Compliance Manager* provides ongoing risk assessments with a risk-based score reference displayed in a dashboard view for regulations and standards. The compliance manager does not enforce rules to be applied to resources.
Reference: https://docs.microsoft.com/en-us/microsoft-365/compliance/compliance-manager

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Question 10: **Incorrect**
Which of the following describes Platform as a Service (PaaS)?

Select the correct option.

- **Users create and deploy applications quickly without having to worry about managing the underlying infrastructure**

(Correct)

- **Users configure the solution as per their needs and start using it without worrying about application hosting and maintenance**
- **Users are responsible for purchasing, installing, configuring, and managing their own software (operating systems, middleware, and applications)**

(Incorrect)

- **Users are responsible for purchasing hardware machines and installing, configuring, and managing their own software (operating systems, middleware, and applications)**

Explanation
Correct answer is option ***Users create and deploy applications quickly without having to worry about managing the underlying infrastructure***

PaaS lets users create and deploy applications quickly without having to worry about managing the underlying infrastructure. You manage the applications and services you develop, and the cloud service provider typically manages everything else.
Reference: https://azure.microsoft.com/en-us/overview/what-is-paas/

Other options are not correct.

Option ***Users are responsible for purchasing & manage hardware machines and installing, configuring, and managing their own software (operating systems, middleware, and applications)*** is incorrect - Azure cloud does not allow users to manage hardware machines, as its responsibility of Azure. Hardware ownership with a customer comes under the Private cloud, where users set up, manage, and maintain their private datacenter.

Option ***Users configure the solution as per their needs and start using it without worrying about application hosting and maintenance*** is incorrect - This solution comes under ***Software as a service (SaaS)*** offering. 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).

Option ***Users are responsible for purchasing, installing, configuring, and managing their own software (operating systems, middleware, and applications)*** is incorrect - This solution comes under ***Infrastructure as a service (IaaS)*** offering. 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.

Question 11: **Incorrect**

```
1. Exam notes:
2. - For each of the following statements, check the checkbox if the statement is
   correct.
3. - Each correct selection is worth one point in the main exam.
```

	Statements	Yes	No
1.	You can associate a Network Security Group (NSG) to a Virtual Network Subnet.	○	○
2.	You can associate a Network Security Group (NSG) to a Virtual Network.	○	○
3.	You can associate a Network Security Group (NSG) to a Network Interface.	○	○

- ☑ **You can associate a Network Security Group (NSG) to a Virtual Network Subnet.**

  (Correct)

- ☐ **You can associate a Network Security Group (NSG) to a Network Interface.**

  (Correct)

- ☑ **You can associate a Network Security Group (NSG) to a Virtual Network.**

  (Incorrect)

Explanation

Statement ***You can associate a Network Security Group (NSG) to a Virtual Network Subnet*** is correct - You can associate zero, or one, *network security group (NSG)* to each ***virtual network subnet*** and ***network interface*** in a virtual machine. The same network security group can be associated with as many subnets and network interfaces as you choose.

Statement ***You can associate a Network Security Group (NSG) to a Virtual Network*** is incorrect - A *Network Security Group (NSG)* cannot be associated with a Virtual Network, alternatively, NSG can be associated with a Subnet in a Virtual network.

Statement ***You can associate a Network Security Group (NSG) to a Network Interface*** is correct - You can associate zero, or one, *network security group (NSG)* to each ***virtual network subnet*** and ***network interface*** in a virtual machine. The same network security group can be associated with as many subnets and network interfaces as you choose.
Reference: https://docs.microsoft.com/en-us/azure/virtual-network/network-security-group-how-it-works

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Question 12: **Incorrect**

```
1. Exam notes:
2. - This question requires you to evaluate the text inside [ ] to determine if
   it is correct
3. - Select "No change needed" if the above statement is correct, otherwise
   select the correct answer.
```

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 average of both SLAs, which is 99.97 percent*]

- **the highest SLA associated with the application, which is 99.99 percent**

  (Incorrect)

- **the lowest SLA associated with the application, which is 99.95 percent**
- **multiplying both SLAs, which is 99.94 percent**

  (Correct)

- **No change needed**

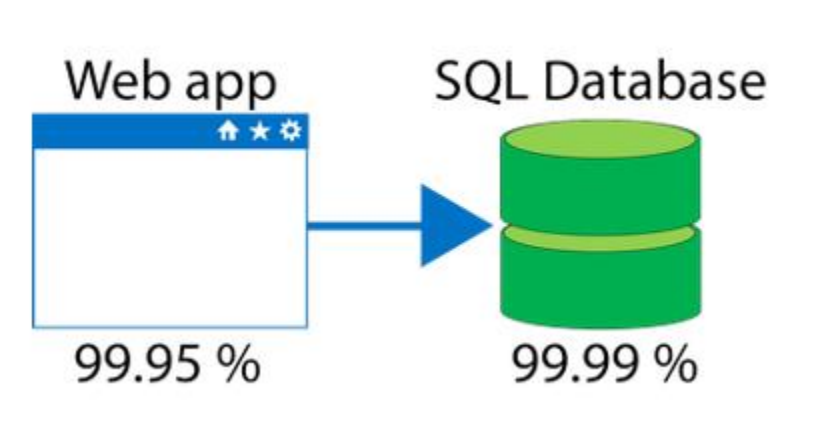
Explanation
Keywords: *Composite SLA => Multiply SLA of all the services*

Correct answer is option ***Multiplying both SLAs, which equals 99.94 percent***.

When combining SLAs across different service offerings, the resultant SLA is called a ***Composite SLA***. The resulting composite SLA can provide higher or lower uptime values, depending on your application architecture.

Consider an App Service web app that writes to Azure SQL Database, with the following SLAs:

- o App Service Web Apps is 99.95 percent.
- o SQL Database is 99.99 percent.



If either service fails, the whole application will fail. In general, the individual probability values for each service are independent. However, the composite SLA value for this application is:

```
SLA Formula
SLA = 99.95 percent × 99.99 percent = approx 99.94 percent
```

Reference: https://azure.microsoft.com/en-us/support/legal/sla/

Other options are incorrect.

Question 13: **Correct**

```
1. Exam notes:
2. - This question requires you to select the correct option from the dropdown.
3. - Udemy does not support dropdown selection, but in the actual exam, you will
   be allowed to use dropdown.
```

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.

- **within a single Azure region.**

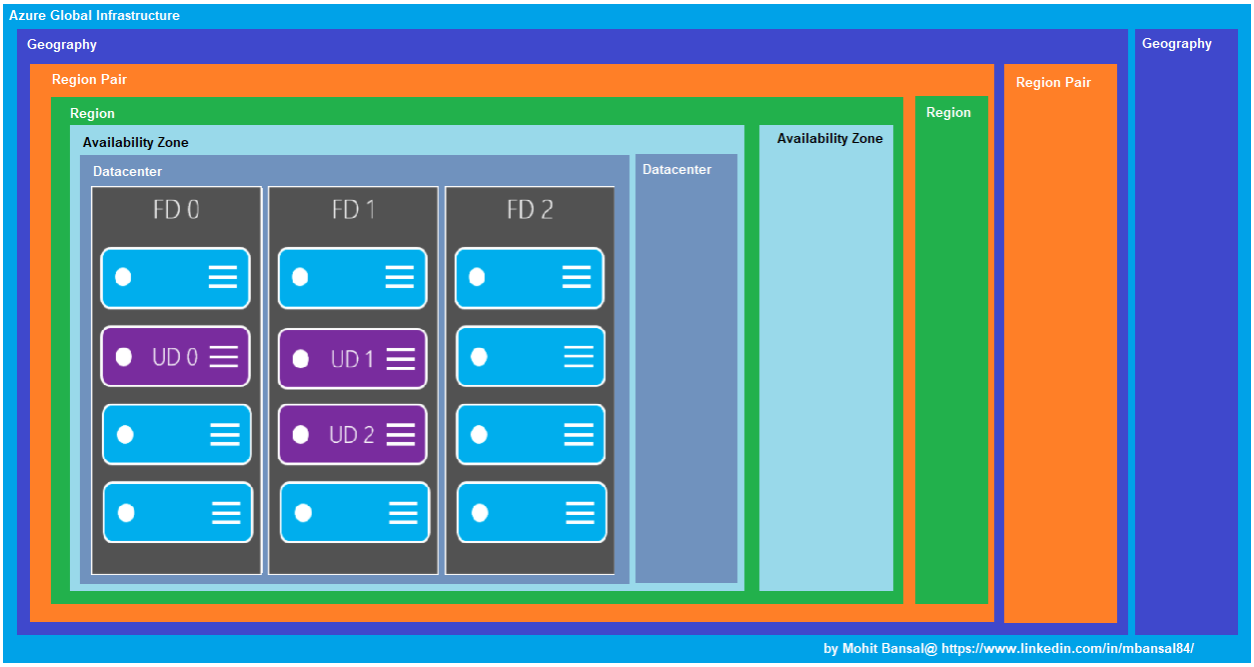
(Correct)

- within a single Azure datacenter.
- across two continents.
- within multiple Azure regions.

Explanation
Correct answer is option ***within a single Azure region***

Availability Zones are physically separate locations within an Azure region that use availability sets to provide additional fault tolerance. AZs are used to avoid outages at the data center level.
Reference: https://docs.microsoft.com/en-us/azure/availability-zones/az-overview

Check this diagram to understand, how Azure global Infrastructure is placed.



Azure divides the world into the following geographies: America, Europe, Asia Pacific, Middle East, and Africa

Geographies contain region-pairs. Each Azure region is paired with another region within the same geography at least 300 miles away, which together make a region pair. Region pair helps in case of a large disaster, which causes an outage large enough to affect even two datacenters.

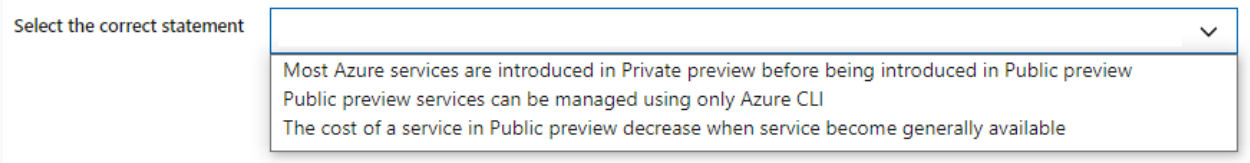
Region is a geographical area on the planet containing at least one, but potentially multiple datacenters that are in close proximity and networked together with a low-latency network. The region contains Availability Zones.

Each Availability Zone contains data centers. You can use ***Availability Sets*** in a data center to ensure your application remains online if a high-impact maintenance event is required, or if a hardware failure occurs with 99.95% Azure SLA. Availability sets are made up of **Update domains (UD)** and **Fault Domains (FD)**.

Other options are not correct.

Question 14: **Correct**

```
1. Exam notes:
2. - This question requires you to select the correct option from the dropdown.
3. - Udemy does not support dropdown selection, but in the actual exam, you will
   be allowed to use dropdown.
```



- **Most Azure services are introduced in Private preview before being introduced in Public preview**

(Correct)

- **Public preview services can be managed using only Azure CLI**
- **The cost of a service in Public preview decrease when service become generally available**

Explanation
Correct answer is option ***Most Azure services are introduced in Private preview before being introduced in Public preview***

Microsoft offers previews of Azure services, features, and functionality for evaluation purposes. Microsoft introduces the majority of its services in Private preview with limited users before service is available for public preview. Users providing feedback on the preview features help Microsoft improve the Azure service.

The general lifecycle of a service is:
Private Preview > Public Preview > Generally Available (GA)

Reference: https://azure.microsoft.com/en-in/support/legal/preview-supplemental-terms/

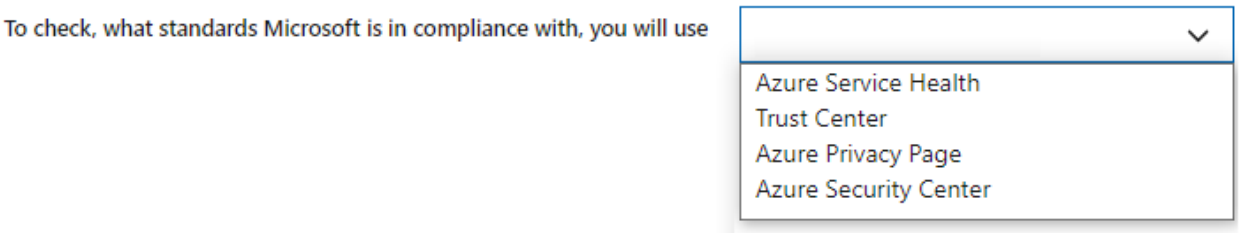
Other options are not correct.

Option ***Public preview services can be managed using only Azure CLI*** is incorrect - A service in Public/Private preview can be used & managed the same way, a service is in Generally Available (GA).

Option ***The cost of a service in Public preview decrease when service becomes generally available*** is incorrect - it's not true.

Question 15: **Correct**

```
1. Exam notes:
2. - This question requires you to select the correct option from the dropdown.
3. - Udemy does not support dropdown selection, but in the actual exam, you will
   be allowed to use dropdown.
```



- **Azure Service Health**
- **Trust Center**

(Correct)

- **Azure Security Center**
- **Azure Privacy Page**

Explanation
Keywords: *Microsoft compliance => Compliance Manager in Trust Center*

Correct answer is option ***Trust Center***

Trust Center is a website resource containing information and details about how Microsoft implements and supports security, privacy, compliance, and transparency in all Microsoft cloud products and services.
Reference: https://www.microsoft.com/trustcenter

Other options are not correct.

Option ***Azure Security Center*** is incorrect - *Azure Security Center* is a monitoring service that provides threat protection across all of your services both in Azure, and on-premises.

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

Option ***Azure Privacy Page*** is incorrect - *The Microsoft privacy statement* explains what personal data Microsoft processes, how Microsoft processes it, and for what purposes.
Reference: https://privacy.microsoft.com/en-US/privacystatement

Option ***Azure Service Health*** is incorrect - *Azure Service Health* is a suite of experiences that provide personalized guidance and support when issues with Azure services affect you. It can notify you, help you understand the impact of issues, and keep you updated as the issue is resolved.
Reference: https://azure.microsoft.com/en-us/features/service-health/

Question 16: **Incorrect**

```
1. Exam notes:
2. - For each of the following statements, check the checkbox if the statement is
   correct.
3. - Each correct selection is worth one point in the main exam.
```

Statements	Yes	No
1. A company can extend a private cloud by adding its own physical servers to the public cloud.	○	○
2. To build a hybrid cloud, you must deploy resources to the public cloud.	○	○
3. A private cloud must be disconnected from the internet.	○	○

- ☑ **A company can extend a private cloud by adding its own physical servers to the public cloud.**

  (Incorrect)

- ☑ **To build a hybrid cloud, you must deploy resources to the public cloud.**

  (Correct)

- ☐ **A private cloud must be disconnected from the internet.**

Explanation

Statement ***A company can extend a private cloud by adding its own physical servers to the public cloud*** is incorrect - You cannot add physical servers to the public cloud. You can only deploy virtual servers in the public cloud. You can extend a private cloud by deploying virtual servers in a public cloud. This would create a hybrid cloud.

Statement ***To build a hybrid cloud, you must deploy resources to the public cloud*** is correct - A hybrid cloud is a combination of a private cloud and a public cloud. Therefore, to create a hybrid cloud, you must deploy resources to a public cloud.

Statement ***A private cloud must be disconnected from the internet*** is incorrect - It is not true that a private cloud must be disconnected from the Internet. Private clouds are usually connected to the Internet for several purposes (eg. download resources, hosting sites/content). Private cloud means that the physical servers are managed by you. It does not mean that it is disconnected from the Internet.

Reference: https://azure.microsoft.com/en-gb/overview/what-are-private-public-hybrid-clouds/

Question 17: **Incorrect**
Which of the following locations ensure data-residency and compliance needs are met for customers who need to keep their data and applications close?

Select the correct option.

- **Availability Zones**

  (Incorrect)

- **Geographies**

  (Correct)

- **Availability Sets**
- **Zones**

Explanation
Keywords: data-residency, compliance *=> Geography*

Correct answer is option ***Geographies***

Geographies allow customers with specific data-residency and compliance needs to keep their data and applications close. Azure divides the world into geographies that are defined by geopolitical boundaries or country borders. Geographies are broken up into the Americas, Europe, Asia Pacific, Middle East, and Africa.
Reference: https://azure.microsoft.com/en-us/global-infrastructure/geographies/

Other options are not correct.

Option ***Availability Zones*** is incorrect - Availability Zones are physically separate locations within an Azure region. Using Availability Zones will make your application highly available with 99.99% Azure SLA. For data-residency and compliance needs, you should select the correct Region in correct Geography.
Reference: https://docs.microsoft.com/en-us/azure/availability-zones/az-overview

Option Availability Sets is incorrect - *Availability Sets* ensure your application remains online if a high-impact maintenance event is required, or if a hardware failure occurs with 99.95% Azure SLA. It does not help in data-residency and compliance needs.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets

Option ***Zone*** is incorrect - A Zone is a geographical grouping of Azure Regions for billing purposes.

Question 18: **Correct**
Which of the following provides information about planned maintenance and changes that could affect the availability of your resources?

Select the correct option.

- **Azure Event Hubs**
- **Azure Security Center**
- **Azure Monitor**
- **Azure Service Health**

(Correct)

Explanation
Keywords: *information about planned maintenance => Service Health*

Correct answer is option ***Azure Service Health***

Azure Service Health helps you prepare for planned maintenance and changes that could affect the availability of your resources. It also provides personalized guidance and support when issues with Azure services affect you. It can notify you, help you understand the impact of issues, and keep you updated as the issue is resolved.
Reference: https://azure.microsoft.com/en-us/features/service-health/

Other options are not correct.

Option ***Azure Event Hubs*** is incorrect - *Event Hubs* is a data ingestion service, which streams millions of events per second from any source. This service does not provide any information for planned resource maintenance.
Reference: https://azure.microsoft.com/en-us/services/event-hubs

Option ***Azure Security Center*** is incorrect - *Azure Security Center* is a monitoring service that provides threat protection across all of your services both in Azure, and on-premises. It does not provide any information for planned resource maintenance.
Reference: https://docs.microsoft.com/en-us/azure/security-center/security-center-introduction

Option ***Azure Monitor*** is incorrect - *Azure Monitor* helps you understand how your applications are performing and proactively identifies issues affecting them and the resources they depend on. It does not provide any information for planned resource maintenance.
Reference: https://docs.microsoft.com/en-us/azure/azure-monitor/overview

---

Question 19: **Correct**
Logic apps, Functions, Service Fabric are all examples of what model of computing within Azure?

Select the correct option.

- **Software as a Service (SaaS) Model**
- **Infrastructure as a Service (IaaS) Model**
- **Platform as a Service (PaaS) Model**
- **Serverless Model**

(Correct)

Explanation

Correct answer is option ***Serverless Model***

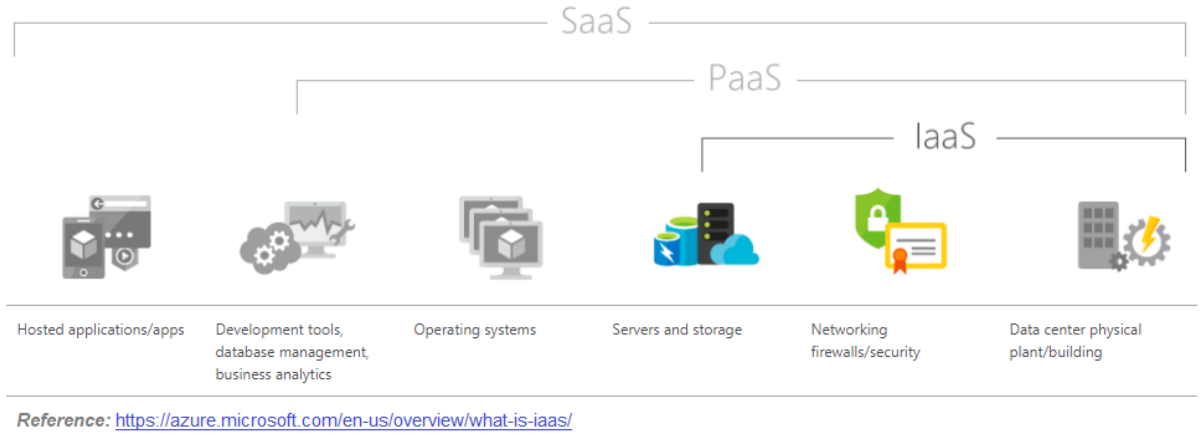
Serverless computing lets you run application code ***without creating, configuring, or maintaining*** a server. The core idea is that your application is broken into separate functions that run when triggered by some action. Few examples of Serverless applications on Azure are Logic apps, Functions, Service Fabric.
Reference: https://azure.microsoft.com/en-us/overview/serverless-computing/

Other options are not correct.

Option ***Platform as a Service (PaaS) Model*** is incorrect - PaaS allows you to avoid the expense and complexity of buying and managing software licenses and the underlying application infrastructure. You manage the applications and services you develop, and the cloud service provider typically manages everything else.
Reference: https://azure.microsoft.com/en-us/overview/what-is-paas/

Option ***Software as a Service (SaaS) Model*** is incorrect - 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).
Reference: https://azure.microsoft.com/en-us/overview/what-is-saas/

Option ***Infrastructure as a Service (IaaS) Model*** is incorrect - 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.
Reference: https://azure.microsoft.com/en-us/overview/what-is-iaas/



Question 20: **Incorrect**

```
1. Exam notes:
2. - For each of the following statements, check the checkbox if the statement is
   correct.
3. - Each correct selection is worth one point in the main exam.
```

Statements	Yes	No
1. You can create a resource group inside another resource group.	○	○
2. An Azure virtual machine can be associated with multiple resource groups.	○	○
3. A resource group can contain resources from multiple Azure regions.	○	○

- ☑ **An Azure virtual machine can be associated with multiple resource groups.**

  (Incorrect)

- ☑ **A resource group can contain resources from multiple Azure regions.**

  (Correct)

- ☑ **You can create a resource group inside another resource group.**

  (Incorrect)

Explanation
Statement ***You can create a resource group inside another resource group*** is incorrect - A Resource Group cannot be nested inside a Resource group. So this statement is not correct.

Statement ***An Azure virtual machine can be associated with multiple resource groups*** is incorrect - A resource (e.g., Virtual machine) can be associated with one Resource group at a time, though you can move a virtual machine from one resource group to another.

Statement ***A resource group can contain resources from multiple Azure regions*** is correct - Resources from different regions can be placed in a resource group. The resource group only contains metadata about the resources it contains.

Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-overview

Question 21: **Correct**
Cloud security is a shared responsibility between you and your cloud provider. Which category of cloud services requires the greatest effort on your part?

Select the correct option.

- **Infrastructure as a Service (IaaS)**

  (Correct)

- **Platform as a Service (PaaS)**
- **Function as a Service (FaaS)**
- **Software as a Service (SaaS)**

Explanation
Keywords: *cloud, greatest client effort needed => IaaS*

Correct answer is option ***Infrastructure as a Service (IaaS)***

In an on-premises datacenter, you own the whole stack. As you move to the cloud some responsibilities transfer to Microsoft. The following diagram illustrates the areas of responsibility between you and Microsoft, according to the type of deployment of your stack.

Reference: https://docs.microsoft.com/en-us/azure/security/fundamentals/shared-responsibility

Reference: https://docs.microsoft.com/en-us/azure/security/fundamentals/shared-responsibility

Using Cloud to host applications, the greatest effort of managing resources is required with IaaS offering, and the least effort is required by SaaS/Serverless offering.

Other options are not correct.

Question 22: **Correct**
A company is planning to move some of its on-premises resources to Azure. They have to classify expenses as part of the business justification.

Which category would "***Cooling expenses***" expense come under?

- **Secondary Expenditure**
- **Capital Expenditures (CapEx)**
- **Primary Expenditure**
- **Operational Expenditure (OpEx)**

(Correct)

Explanation
Correct answer is option ***Operational Expenditure (OpEx)***

Operational Expenditure (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 upfront cost, as you pay for a service or product as you use it. The following are different cost considered as OpEx:
o Software licensing.
o Hosting expenses.
o Electric bills.
o Real estate rentals.
o Cooling expenses.
o Temporary staff required for operations.
o Equipment rentals.
o Replacement parts.
o Maintenance contracts.
o Repair services.
o Business continuity and disaster recovery (BCDR) services.
o Other expenses that don't require capital expense approvals.

Reference: https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/business-strategy/financial-models

Other options are not correct.

Option ***Capital Expenditures (CapEx)*** is incorrect - *Capital Expenditure (CapEx)* is the upfront spending of money on physical infrastructure, and then deducting that upfront expense over time. The upfront cost from CapEx has a value that reduces over time. The following are different cost considered as CapEx:

- o Server costs
- o Storage costs
- o Network costs
- o Backup and archive costs
- o Organization continuity and disaster recovery costs
- o Datacenter infrastructure costs
- o Technical personnel

Reference: https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/business-strategy/financial-models

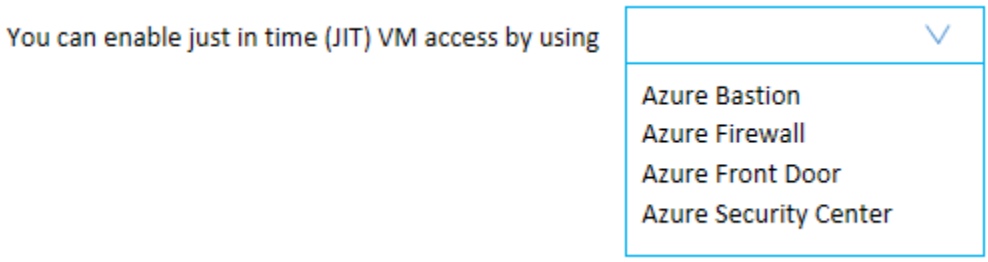
Option ***Primary Expenditure*** is incorrect - It's not a valid expense category

Option ***Secondary Expenditure*** is incorrect - It's not a valid expense category

---

Question 23: **Incorrect**

```
1. Exam notes:
2. - This question requires you to select the correct option from the dropdown.
3. - Udemy does not support dropdown selection, but in the actual exam, you will
   be allowed to use dropdown.
```



- **Azure Bastion**
- **Azure Firewall**

(Incorrect)

- **Azure Front Door**

- **Azure Security Center**

  (Correct)

Explanation
Correct answer is option ***Azure Security Center***

The just-in-time (JIT) virtual machine (VM) access feature in Azure Security Center allows you to lock down inbound traffic to your Azure Virtual Machines. This reduces exposure to attacks while providing easy access when you need to connect to a VM.
Reference: https://docs.microsoft.com/en-us/azure/security-center/security-center-just-in-time

Other options are not correct.

Option ***Azure Bastion*** is incorrect - Azure Bastion is a fully managed service that provides more secure and seamless Remote Desktop Protocol (RDP) and Secure Shell Protocol (SSH) access to virtual machines (VMs) without any exposure through public IP addresses. Provision of the service directly in your local or peered virtual network to get support for all the VMs within it.
Reference: https://docs.microsoft.com/en-us/azure/bastion/bastion-overview

Option ***Azure Firewall*** is incorrect - *The Azure Firewall* grants server access based on the originating IP address of each request. You create firewall rules that specify ranges of IP addresses. Only clients from these granted IP addresses will be allowed to access the server.
Reference: https://docs.microsoft.com/en-us/azure/firewall/overview

Option ***Azure Front Door*** is incorrect - Azure Front Door is a global, scalable entry-point that uses the Microsoft global edge network to create fast, secure, and widely scalable web applications. With Front Door, you can transform your global consumer and enterprise applications into robust, high-performing personalized modern applications with content that reach a global audience through Azure.
Reference: https://docs.microsoft.com/en-us/azure/frontdoor/front-door-overview

---

Question 24: **Incorrect**

```
1. Exam notes:
2. - This question requires you to evaluate the text inside [ ] to determine if
   it is correct
3. - Select "No change needed" if the above statement is correct, otherwise
   select the correct answer.
```

Azure Germany can be used by [*legal residents of Germany only*]

- only enterprises that purchase their azure licenses from a partner based in Germany

(Incorrect)

- No change needed
- only enterprises that are registered in Germany
- any user or enterprise that requires its data to reside in Germany

(Correct)

Explanation
Correct answer is optioning ***any user or enterprise that requires its data to reside in Germany***

Microsoft Azure Germany is a physically isolated instance of Microsoft Azure. It uses world-class security and compliance services that are critical to German data privacy regulations (GDPR) for all systems and applications built on its architecture. *It can be used by any user or enterprise that requires its* ***data to reside in Germany***.
Reference: https://docs.microsoft.com/en-us/azure/germany/germany-welcome

Other options are not correct.

Question 25: **Incorrect**

```
1. Exam notes:
2. - This question requires you to evaluate the text inside [ ] to determine if
   it is correct
3. - Select "No change needed" if the above statement is correct, otherwise
   select the correct answer.
```

You are planning to deploy 20 virtual machines to an Azure environment. To ensure that a virtual machine, named VMSecure, cannot connect to the other virtual machines, VMSecure must [*have two Network Interfaces*]

- be deployed to a separate Virtual Network

(Correct)

- No change needed
- be deployed to a separate Resource Group
- run a different operating system than the other virtual machines

(Incorrect)

Explanation
Keywords: *multiple virtual machines, restrict connectivity => Separate Virtual Networks*

Correct answer is option ***be deployed to a separate Virtual Network.***

Azure Virtual Network (VNet) enables many types of Azure resources, such as Azure Virtual Machines (VM), to securely communicate with each other. To restrict communication between Virtual Machines, place them in different virtual networks.
Reference: https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-overview

Other options are not correct.

Option ***No change needed*** i.e., ***have two Network Interfaces*** is incorrect - *A network interface* enables an Azure Virtual Machine to communicate with the internet, Azure resources, and on-premises resources. Resources in the same Virtual Network can connect with each other, so multiple network interfaces will not help.

Option ***run a different operating system than the other virtual machines*** is incorrect- VM operating system does not provide the option to restrict other VMs not to access VMSecure.

Option ***be deployed to a separate Resource Group*** is incorrect - Two VMs in different Resource Groups, but in the same Virtual Network, can still connect with each other.

Question 26: **Incorrect**

```
1. Exam notes:
2. - This question requires you to evaluate the text inside [ ] to determine if
   it is correct
3. - Select "No change needed" if the above statement is correct, otherwise
   select the correct answer.
```

To use Azure datacenters that are made available with power, cooling, and networking capabilities independent from other data centers in a region, choose a region that supports [*Availability Zones*]?

- **Availability Set**

(Incorrect)

- **Geography**
- **Zone**

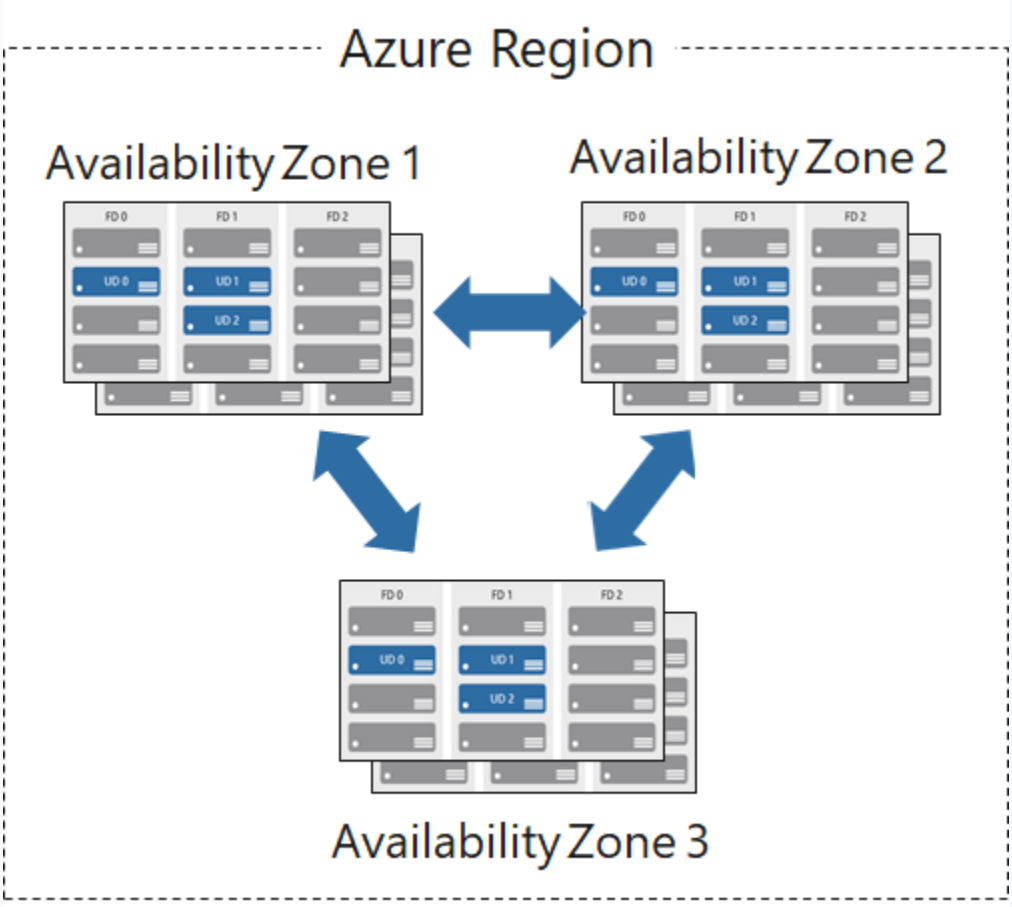
- **No change needed**

(Correct)

Explanation
Keywords: datacenter, independent power, cooling, networking *=> Availability Zone*

Correct answer is optioning ***No change needed*** i.e., ***Availability Zones***

Availability Zones are physically separate locations with their own power, cooling, and networking, within an Azure region, that use availability sets to provide additional fault tolerance. Azure can help make your app highly available through Availability Zones with 99.99% Azure SLA.
Reference: https://docs.microsoft.com/en-us/azure/availability-zones/az-overview



Reference: https://docs.microsoft.com/en-us/learn/modules/discuss-core-azure-architectural-components/7-define-availability-zones

Other options are not correct.

Option ***Geography*** is incorrect - Azure divides the world into *geographies* that are defined by geopolitical boundaries or country borders. Azure geography is a discrete market typically containing two or more regions that preserve data residency and compliance boundaries. Geographies are broken up into the Americas, Europe, Asia Pacific, Middle East, and Africa.
Reference: https://azure.microsoft.com/en-us/global-infrastructure/geographies/

Option ***Availability Set*** is incorrect - *Availability Sets* ensure your application remains online if a high-impact maintenance event is required, or if a hardware failure occurs with 99.95% Azure SLA. Availability sets are made up of **Update domains (UD)** and **Fault domains (FD)**.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets

Option ***Zone*** is incorrect - *A Zone* is a geographical grouping of Azure Regions for billing purposes. the following Zones exist and include the sample regions as listed below:
- o Zone 1 – West US, East US, Canada West, West Europe, France Central and others
- o Zone 2 – Australia Central, Japan West, Central India, Korea South and others
- o Zone 3 - Brazil South
- o DE Zone 1 - Germany Central, Germany Northeast

Question 27: **Correct**

```
1. Exam notes:
2. - This question requires you to evaluate the text inside [ ] to determine if
   it is correct
3. - Select "No change needed" if the above statement is correct, otherwise
   select the correct answer.
```

[*Azure policies provide*] a common platform for deploying objects to cloud infrastructure and for implementing consistency across the Azure environment.

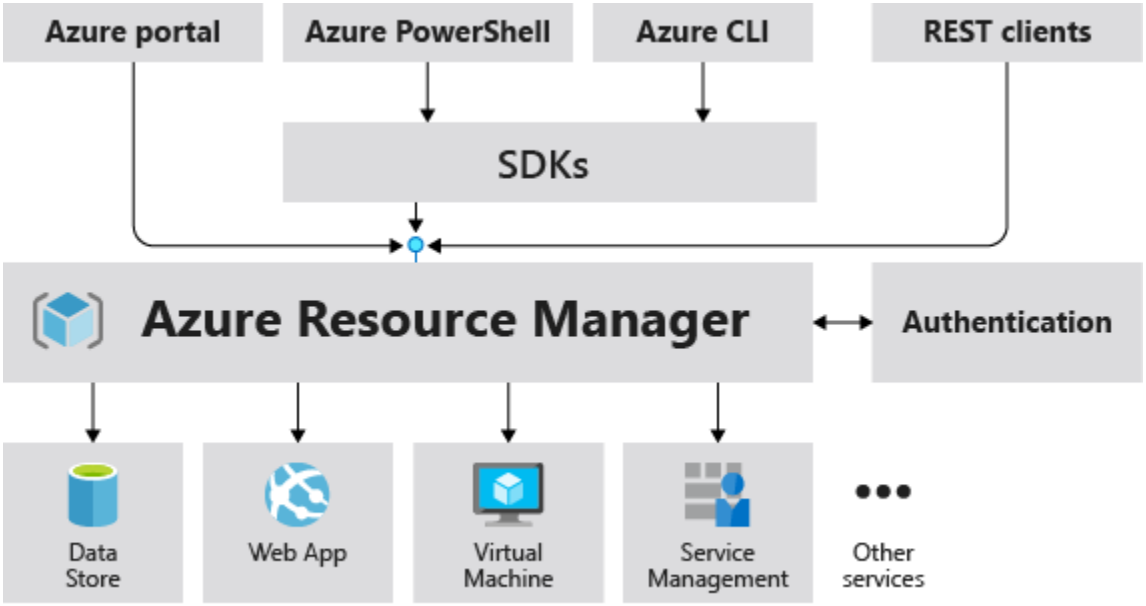
- **Management groups provide**
- **Resource groups provide**
- **No change needed**
- **Azure Resource Manager provides**

(Correct)

Explanation
Keywords: *common platform, consistency, multiple environments => Azure Resource Manager*

Correct answer is option ***Azure Resource Manager provides***

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. You use management features, like access control, locks, and tags, to secure and organize your resources after deployment.



Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview

Other options are not correct.

Option ***No change needed*** i.e., ***Azure policies provide*** is incorrect - *Azure Policy* helps to enforce organizational standards and to assess compliance at-scale. Azure Policy evaluates resources in Azure by comparing the properties of those resources to business rules. These business rules, described in JSON format, are known as policy definitions.
Reference: https://docs.microsoft.com/en-us/azure/governance/policy/overview

Option ***Management groups provide*** is incorrect - *Management groups* are containers that help you manage access, policy, and compliance for multiple subscriptions. All subscriptions in a management group automatically inherit the conditions applied to the management group.
Reference: https://docs.microsoft.com/en-us/azure/governance/management-groups/overview

Option ***Resource groups provide*** is incorrect - *Resource Groups* is a unit of management for resources in Azure, allows you to logically group Azure Resources together. This allows you to manage the application collectively over its lifecycle, rather than manage components individually.
Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview#resource-groups

Question 28: **Correct**

```
Exam notes:
- This question requires you to evaluate the text inside [ ] to determine if it is correct
- Select "No change needed" if the above statement is correct, otherwise select the correct answer.
```

As an Azure customer, Azure reservations offer discounted prices if [*provision many resources*]

- **set spending limits**
- **Make upfront commitments on compute capacity**

(Correct)

- **Have a free account**
- **No change needed**

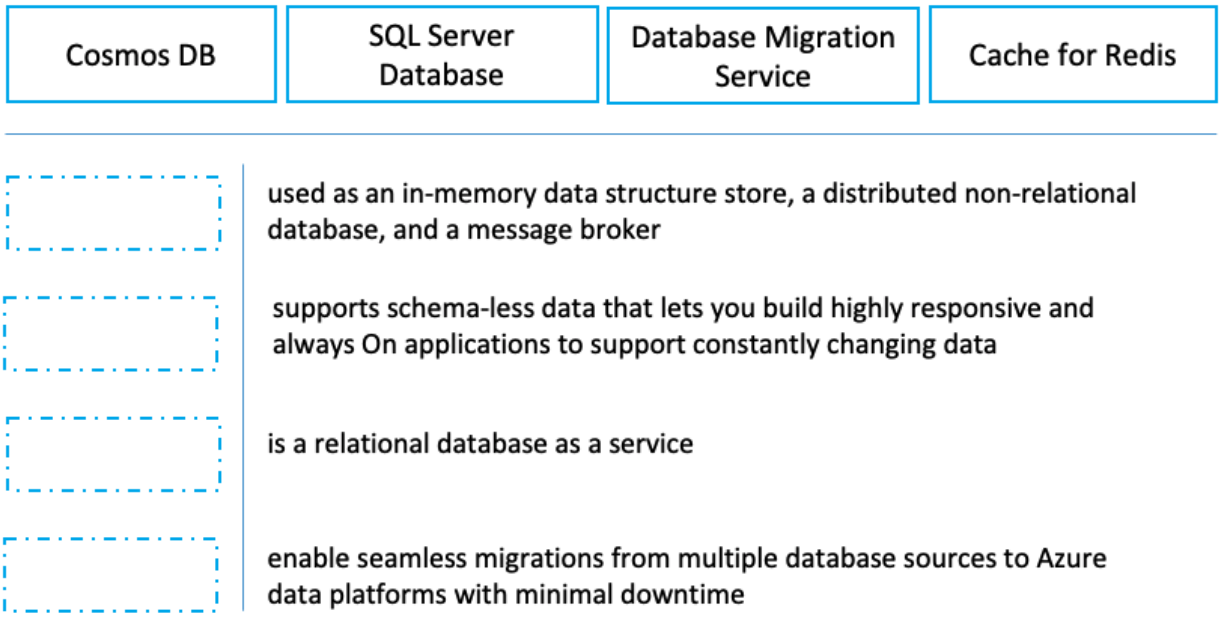
Explanation
Correct answer is option ***Make upfront commitments on compute capacity***

Azure Reservations help you save money by ***committing upfront to one-year or three-year plans*** for multiple products. Reservations can significantly reduce your resource costs up to 72% on pay-as-you-go prices. Reservations provide a billing discount and don't affect the runtime state of your resources. After you purchase a reservation, the discount automatically applies to matching resources.
Reference: https://docs.microsoft.com/en-us/azure/cost-management-billing/reservations/save-compute-costs-reservations

Other options are not correct.

Question 29: **Correct**

```
Exam notes:
- Drag the appropriate term from the row on the top to its description on the bottom.
- Udemy does not support drag & drop, but in the actual exam, you will be allowed.
- Each correct selection is worth one point in the main exam.
```



- *Cosmos DB* - is a relational database as a service
  SQL Server Database - enable seamless migrations from multiple database sources to Azure data platforms with minimal downtime
  Database Migration Service - used as an in-memory data structure store, a distributed non-relational database, and a message broker
  Cache for Redis - supports schema-less data that lets you build highly responsive and always On applications to support constantly changing data
- *Cosmos DB* - is a relational database as a service
  SQL Server Database - used as an in-memory data structure store, a distributed non-relational database, and a message broker
  Database Migration Service - enable seamless migrations from multiple database sources to Azure data platforms with minimal downtime
  Cache for Redis - supports schema-less data that lets you build highly responsive and always On applications to support constantly changing data
- *Cosmos DB* - supports schema-less data that lets you build highly responsive and always On applications to support constantly changing data
  SQL Server Database - is a relational database as a service
  Database Migration Service - enable seamless migrations from multiple database sources to Azure data platforms with minimal downtime
  Cache for Redis - used as an in-memory data structure store, a distributed non-relational database, and a message broker

  (Correct)

- ***Cosmos DB*** **- used as an in-memory data structure store, a distributed non-relational database, and a message broker**
  SQL Server Database **- is a relational database as a service**
  Database Migration Service **- enable seamless migrations from multiple database sources to Azure data platforms with minimal downtime**
  Cache for Redis **- supports schema-less data that lets you build highly responsive and always On applications to support constantly changing data**

Explanation
Correct answer is *option*
Cosmos DB *- supports schema-less data that lets you build highly responsive and always On applications to support constantly changing data*
SQL Server Database *- is a relational database as a service*
Database Migration Service *- enable seamless migrations from multiple database sources to Azure data platforms with minimal downtime*
Cache for Redis *- used as an in-memory data structure store, a distributed non-relational database, and a message broker*

Detailed explanation:

Azure Cosmos DB is a **schema-less database service** that enables you to elastically and independently scale throughput and storage across any number of Azure's geographic regions.
Reference: https://docs.microsoft.com/en-in/azure/cosmos-db/introduction

Azure SQL Server Database is a relational database as a service (DaaS) based on the latest stable version of Microsoft SQL Server database engine. SQL Database is a high-performance, reliable, fully managed and secure database that you can use to build data-driven applications and websites in the programming language of your choice without needing to manage infrastructure.
Reference: https://docs.microsoft.com/en-us/azure/azure-sql/database/active-geo-replication-overview

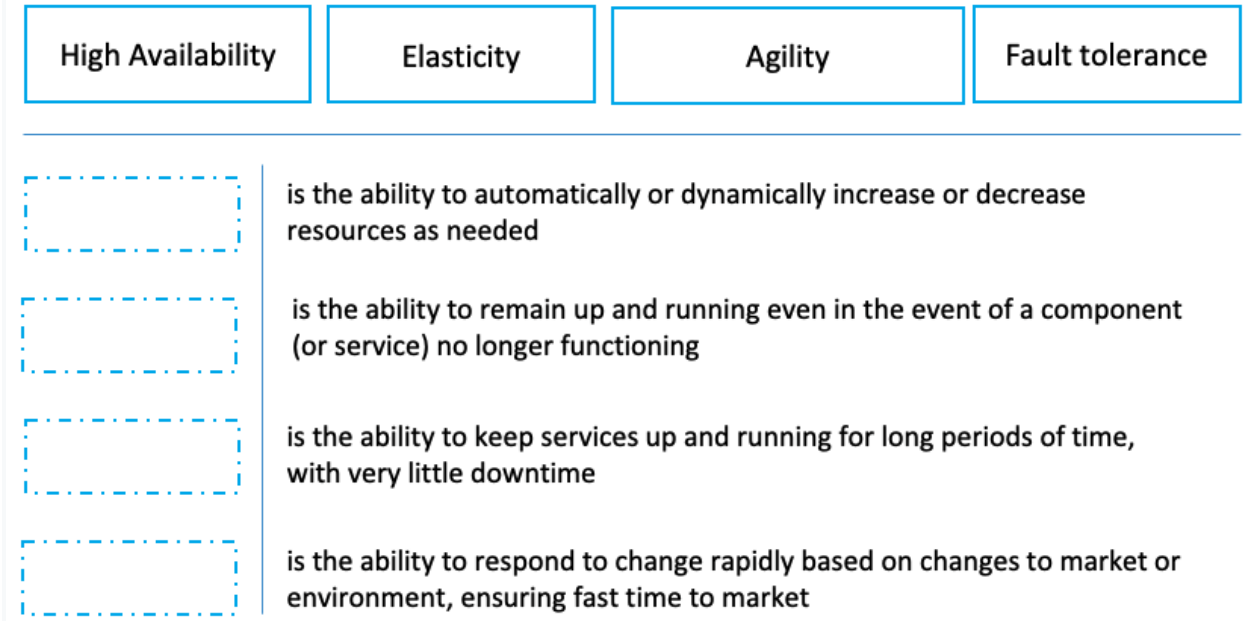
Azure Database Migration Service enables seamless migrations from multiple database sources to Azure Data platforms with minimal downtime (online migrations).
Reference: https://docs.microsoft.com/en-us/azure/dms/dms-overview

Azure Cache for Redis can be used as an in-memory data structure store, a distributed non-relational database, and a message broker. Application performance is improved by taking advantage of the low-latency, high-throughput performance of the Redis engine.
Reference: https://docs.microsoft.com/en-us/azure/azure-cache-for-redis/cache-overview

Other options are not correct.

Question 30: **Incorrect**

```
1. Exam notes:
2. - Drag the appropriate term from the row on the top to its description on the
   bottom.
3. - Udemy does not support drag & drop, but in the actual exam, you will be
   allowed.
4. - Each correct selection is worth one point in the main exam.
```



- ***High Availability*** **- is the ability to keep services up and running for long periods of time, with very little downtime**
  Elasticity **- is the ability to automatically or dynamically increase or decrease resources as needed**
  Agility **- is the ability to respond to change rapidly based on changes to market or environment, ensuring fast time to market**
  Fault tolerance **- is the ability to remain up and running even in the event of a component (or service) no longer functioning**

(Correct)

- ***High Availability*** **- is the ability to remain up and running even in the event of a component (or service) no longer functioning**
  Elasticity **- is the ability to respond to change rapidly based on changes to market or environment, ensuring fast time to market**
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  Agility **- is the ability to remain up and running even in the event of a component (or service) no longer functioning**
  Fault tolerance **- is the ability to keep services up and running for long periods of time, with very little downtime**

(Incorrect)

Explanation
Correct answer is *option*
High Availability *- is the ability to keep services up and running for long periods of time, with very little downtime*
Elasticity *- is the ability to automatically or dynamically increase or decrease resources as needed*
Agility *- is the ability to respond to change rapidly based on changes to market or environment, ensuring fast time to market*
Fault tolerance *- is the ability to remain up and running even in the event of a component (or service) no longer functioning*

Detailed explanation:

High Availability is the ability to keep services up and running for long periods of time, with very little downtime. Workloads are typically spread across different virtual machines to gain high throughput, performance, and to create redundancy in case a service is impacted due to an update or other event.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machines/availability

Elasticity is the ability to automatically or dynamically increase or decrease resources as needed. Elastic resources match the current needs and resources are added or removed automatically to meet future needs when it's needed (and from the most

advantageous geographic location).
Reference: https://azure.microsoft.com/en-us/overview/what-is-elastic-computing/

Agility is the ability to respond to change rapidly based on changes to market or environment, ensuring fast time to market. Cloud services can allocate and deallocate resources quickly. They are provided on-demand via self-service, so vast amounts of computing resources can be provisioned in minutes.
Reference: https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/strategy/business-outcomes/agility-outcomes

Fault tolerance is the ability to remain up and running even in the event of a component (or service) no longer functioning. Typically, redundancy is built into cloud services architecture, so if one component fails, a backup component takes its place. This type of service is said to be tolerant of faults.

Other options are not correct.

Question 31: **Correct**
Who operates Azure China Region Datacenters?

Select the correct option.

- **Azure Global**
- **Azure China 21Vianet**

  (Correct)

- **Azure China**
- **Azure with China Government**

Explanation
Correct answer is option ***Azure China 21Vianet***

Azure China is operated by 21Vianet. It's a physically separated instance of cloud services located in China. Azure China is independently operated and transacted by ***Shanghai Blue Cloud Technology Co., Ltd. ("21Vianet"),*** a wholly-owned subsidiary of Beijing 21Vianet Broadband Data Center Co., Ltd.
Reference: https://docs.microsoft.com/en-us/azure/china/overview-operations

Other options are not correct.

Question 32: **Correct**
You are running a virtual machine in a public cloud using IaaS. Which model correctly reflects how that resource is managed?

Select the correct option.

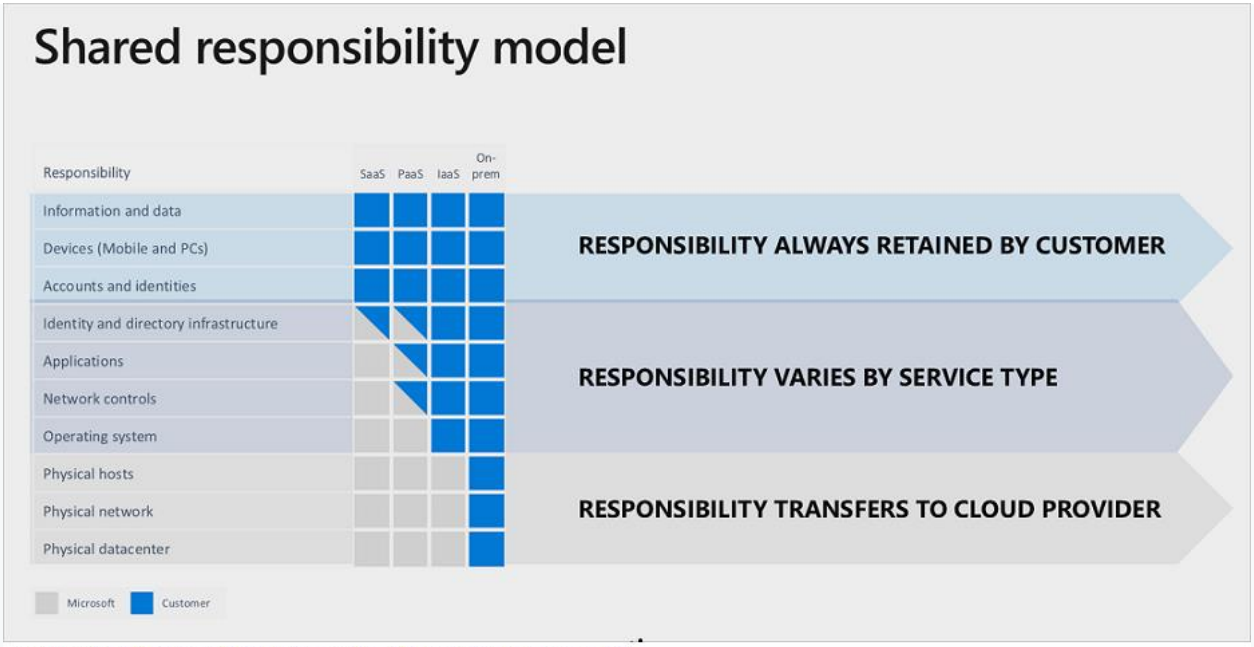
- **User management model**
- **Serverless model**
- **Consumption-based model**
- **Shared responsibility model**

(Correct)

Explanation
The shared responsibility model is the correct answer.

Correct answer is option ***Shared responsibility model***

In an on-premises datacenter, you own the whole stack. As you move to the cloud some responsibilities transfer to Microsoft. Under the shared responsibility model, the management of the resource is shared between the cloud provider and the end-user. The cloud provider is responsible for the cloud services infrastructure and the end-user is responsible for the service being configured and managed correctly. The following diagram illustrates the areas of responsibility between you and Microsoft.
Reference: https://docs.microsoft.com/en-us/azure/security/fundamentals/shared-responsibility



Other options are not correct.

Question 33: **Incorrect**
You are planning 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?

- **Azure Advanced Threat Protection (ATP)**
- **Azure Multi-Factor Authentication (MFA)**

(Incorrect)

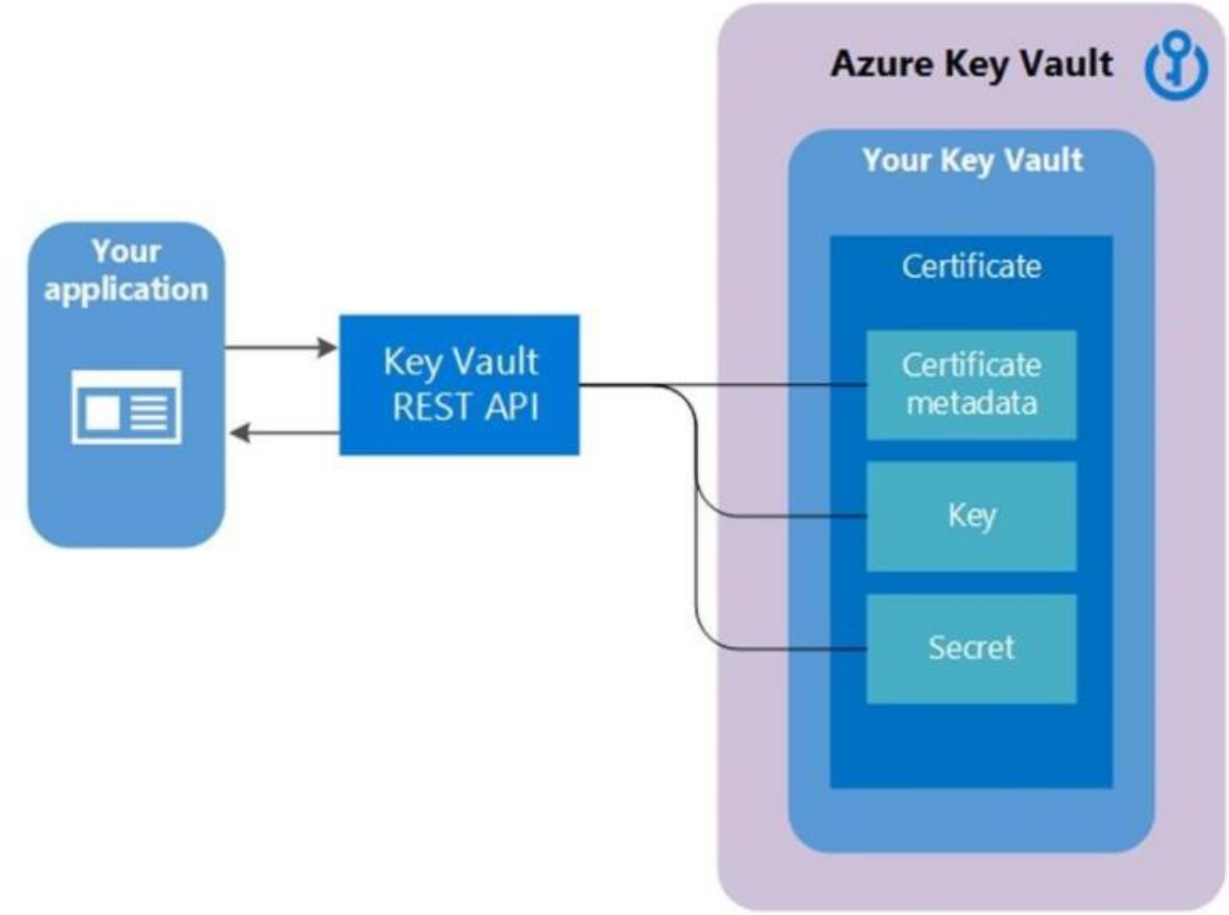
- **Azure Information Protection (AIP)**
- **Azure Key Vault**

(Correct)

Explanation
Keywords: *credentials, security, encryption => Key Vault*

Correct answer is option ***Azure Key Vault***

Azure Key Vault is a cloud service for storing your administrative credentials by keeping them in a single, central location and by providing secure access, permissions control, and access logging capabilities.
Reference: https://docs.microsoft.com/en-us/azure/key-vault/general/overview



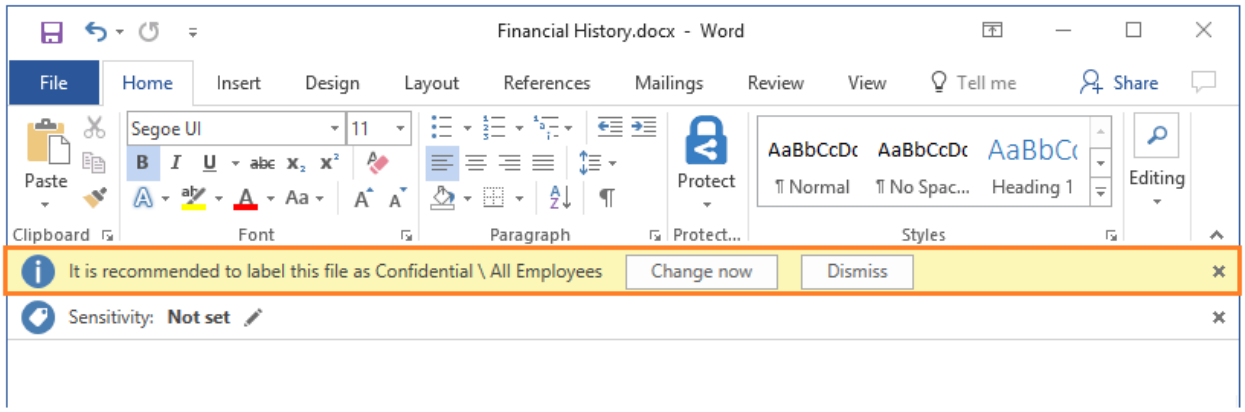
Other options are not correct.

Option ***Azure Multi-Factor Authentication (MFA)*** is incorrect - *Azure Multi-Factor Authentication (MFA)* provides additional security for your identities by requiring two or more elements for full authentication. MFA can not encrypt and manage administrative credentials.
Reference: https://docs.microsoft.com/en-us/azure/active-directory/authentication/overview-authentication#azure-ad-multi-factor-authentication

Option ***Azure Advanced Threat Protection (ATP)*** is incorrect - *Azure Advanced Threat Protection (ATP)* is a cloud-based security solution, capable of detecting known malicious attacks and techniques, security issues, and risks against your network. It

cannot be used to encrypt and manage administrative credentials.
Reference: https://docs.microsoft.com/en-us/azure-advanced-threat-protection/what-is

Option ***Azure Information Protection (AIP)*** is incorrect - *Azure Information Protection (AIP)* helps organizations to classify their documents and emails by applying labels. AIP cannot be used to encrypt and manage administrative credentials.
Reference: https://docs.microsoft.com/en-us/azure/information-protection/what-is-information-protection



Reference: https://docs.microsoft.com/en-us/learn/modules/review-security-tools-features/6-define-azure-information-protection

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Question 34: **Correct**
You want to be alerted when new recommendations to improve your cloud environment are available.

Which service will do this?

- **Azure Monitor**
- **Azure Advisor**

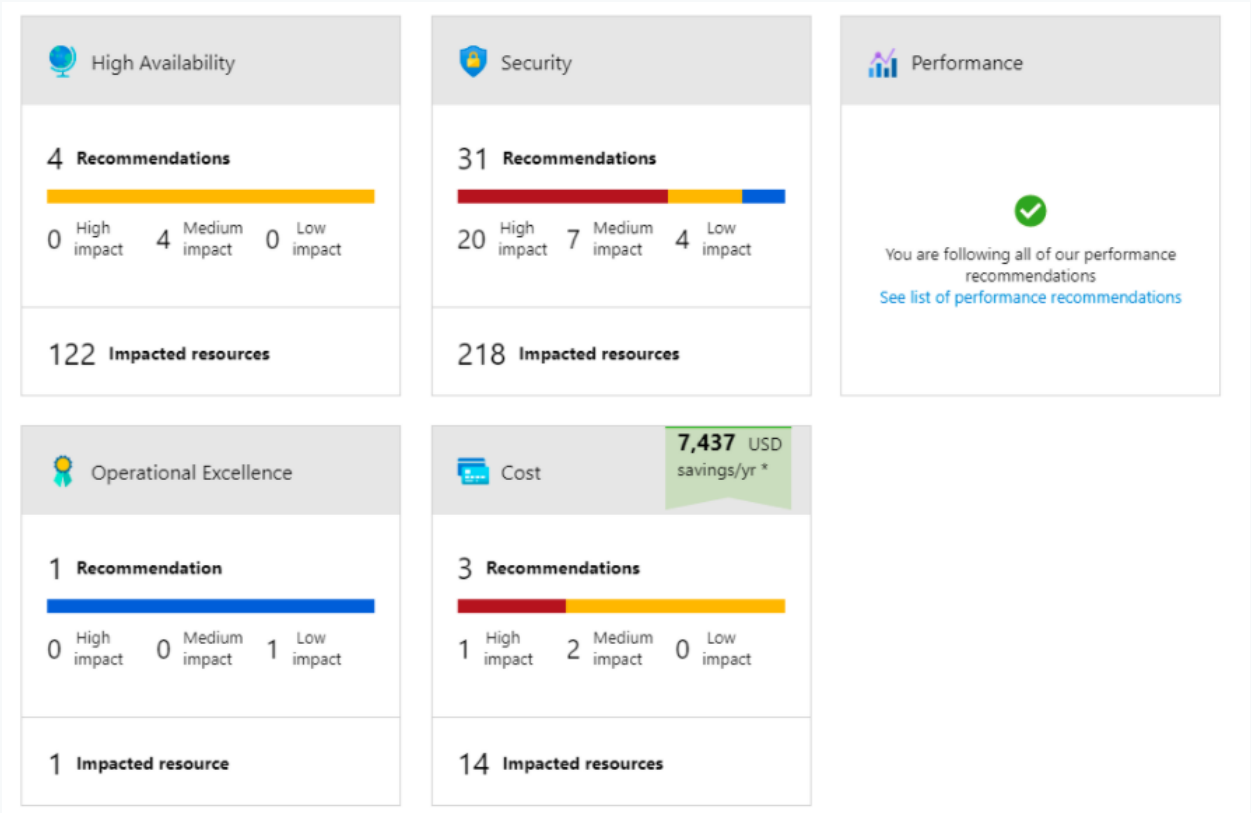
(Correct)

- **Azure Cost Management**
- **Azure Service Health**

Explanation
Correct answer is option ***Azure Advisor***

Azure Advisor can alert you when new recommendations are available. ***Azure Advisor*** is a free service built into Azure that provides recommendations on ***high availability, security, performance, operational excellence, and cost***. The advisor analyzes your

deployed services and looks for ways to improve your environment across those five areas.
Reference: https://docs.microsoft.com/en-us/azure/advisor/advisor-get-started



Other options are not correct.

Option ***Azure Monitor*** is incorrect - Azure Monitor offers alerts, but not for new optimization recommendations, rather it generates alerts based on different metrics data (CPU usage, memory usage) collected from VMs and other sources.
Reference: https://docs.microsoft.com/en-us/azure/azure-monitor/overview

Option ***Azure Service Health*** is incorrect - Azure Service Health offers alerts, but not for new optimization recommendations, rather it notifies you of issues with Azure services.
Reference: https://azure.microsoft.com/en-us/features/service-health/

Option ***Azure Cost Management*** is incorrect - Azure cost management offer alerts based on cost usage of your services.

Question 35: **Incorrect**

```
1. Exam note:
2. - Each correct selection is worth one point in the main exam.
```

Which of the following statements are correct in the context of factors that affect cost in Azure?

Select two correct options.

- ☑ **If you store 10 TB of data in Azure Blob storage, it will always cost the same, regardless of Azure region in which the data is located.**

  (Incorrect)

- ☐ **Data transfer between Azure services located in two different regions is always free.**
- ☑ **If you transfer data between Azure Storage accounts in different Azure regions, you will not get charged, the transfer is free.**

  (Incorrect)

- ☑ **Transferring data between Azure Storage accounts in different Azure regions is not free.**

  (Correct)

- ☐ **Outbound data traffic from Azure to external destinations is always free.**
- ☐ **If you store 10 TB of data in Azure Blob storage, the pricing will be different and it depends on which Azure region your data is located in.**

  (Correct)

Explanation
Correct answers are

- Option ***Transferring data between Azure Storage accounts in different Azure regions is not free***
- Option ***If you store 10 TB of data in Azure Blob storage, the pricing will be different and it depends on which Azure region your data is located in***

The price of Azure storage varies by region. If you use the Azure storage pricing page, you can select different regions and see how the price changes per region. You are charged for read and write operations in general-purpose v2 storage accounts. You would be charged for the read operations of the source storage account and write operations in the destination storage account.

References:
https://azure.microsoft.com/en-gb/pricing/details/storage/blobs/
https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview

Other options are incorrect.

Question 36: **Correct**
Which Azure service can you use as a security information and event management (SIEM) solution?

Select the correct option.

- **Azure Cognitive Services**
- **Azure Synapse**
- **Azure Information Protection**
- **Azure Sentinel**

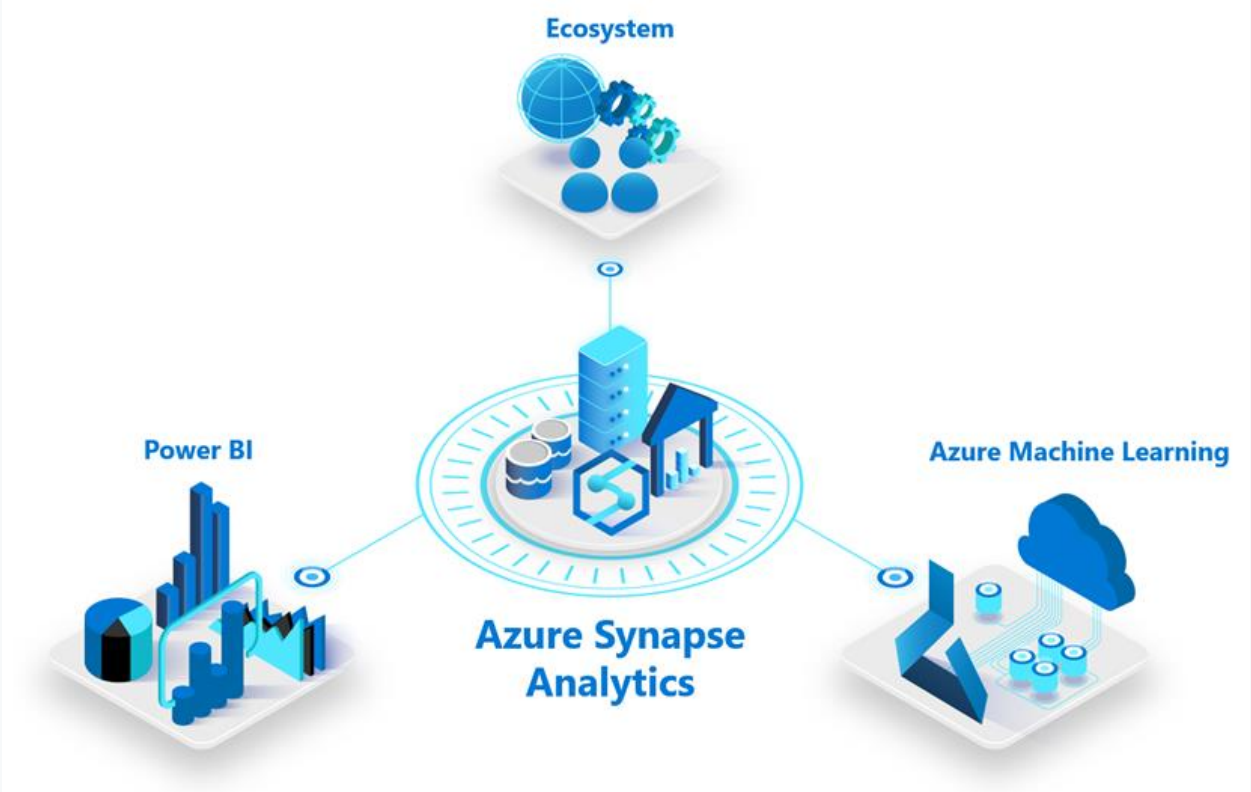
(Correct)

Explanation
Correct answer is option ***Azure Sentinel***

Azure Sentinel is Microsoft's cloud based SIEM system, which aggregates security data from many different sources to provide additional capabilities for threat detection and responding to threats. It also provides capabilities for threat detection and response.
Reference: https://azure.microsoft.com/services/azure-sentinel/

Other options are not correct.

Option ***Azure Synapse*** is incorrect - *Azure Synapse Analytics* is a limitless analytics service that brings together enterprise data warehousing and big data analytics. It gives you the freedom to query data on your terms, using either serverless on-demand or provisioned resources at scale.



Reference: https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-overview-what-is

Option ***Azure Information Protection*** is incorrect - *Azure Information Protection (AIP)* helps organizations to classify their documents and emails by applying labels. AIP cannot be used to encrypt and manage administrative credentials.
Reference: https://docs.microsoft.com/en-us/azure/information-protection/what-is-information-protection

Option ***Azure Cognitive Services*** is incorrect - ***Cognitive services*** are a collection of domain-specific pre-trained AI models that can be customized with your data. They are categorized broadly into vision, speech, language, and search.
Reference: https://docs.microsoft.com/en-us/azure/cognitive-services/what-are-cognitive-services

---

Question 37: **Incorrect**

```
1. Exam notes:
2. - This question requires you to evaluate the text inside [ ] to determine if
   it is correct
3. - Select "No change needed" if the above statement is correct, otherwise
   select the correct answer.
```

Data that is stored in the archive access tier of an Azure Storage account [*must be restored before the data can be accessed*] .

- **can only be read by using Azure Backup**

  (Incorrect)

- **must be rehydrated before the data can be accessed**

  (Correct)

- **No change needed**
- **Can be accessed at any time by using azcopy.exe**

Explanation
Correct answer is option ***must be rehydrated before the data can be accessed***

While a blob is in the Archive access tier, it's considered offline and can't be read or modified. There are two options to retrieve and access data stored in the Archive access tier.
o ***Rehydrate an archived blob to an online tier*** - Rehydrate an archive blob to hot or cool by changing its tier using the Set Blob Tier operation.
o ***Copy an archived blob to an online tier*** - Create a new copy of an archive blob by using the Copy Blob operation. Specify a different blob name and a destination tier of hot or cool.
Reference: https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-rehydration

Other options are not correct.

Question 38: **Incorrect**

```
1. Exam note:
2. - Each correct selection is worth one point in the main exam.
```

Which of the following statements are correct for the Azure Active Directory?

Select three correct options.

- **An Azure subscription can be associated with multiple Azure Active Directory (Azure AD) tenants**

  (Incorrect)

- **The SLA of Active Directory Basic is the same as SLA for Active Directory Free**

- ☐ **Azure has built-in authentication and authorization services that provide secure access to Azure resources**

  (Correct)

- ☑ **The Azure Active Directory (Azure AD) tenant is deleted by default when the Azure subscription expires**

  (Incorrect)

- ☑ **You can modify the Azure Active Directory (Azure AD) tenant to which an Azure subscription is associated**

  (Correct)

- ☑ **Azure Active Directory Premium guarantees a minimum 99.99% availability**

  (Correct)

Explanation
Correct answers are

- Option ***Azure has built-in authentication and authorization services that provide secure access to Azure resources***

- Option ***You can modify the Azure Active Directory (Azure AD) tenant to which an Azure subscription is associated***

- Option ***Azure Active Directory Premium guarantees a minimum 99.99% availability***

Other options are incorrect.

Question 39: **Incorrect**
You are trying 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?

- ◌ **Modify an Azure policy**

(Incorrect)

- **Create a service health alert**
- **Upgrade your support plan**
- **Create a new support request**

(Correct)

Explanation
Keywords: *increase subscription service limits => create a support request*

Correct answer is option ***Create a new support request***

If you want to increase the limit or quota above the default limit, open an online customer support request.
Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/azure-subscription-service-limits

Other options are not correct.

Option ***Modify an Azure policy*** is incorrect - Azure Policy helps to enforce rules at the resource group, or subscription level. The policy can help to make sure that the organization's standards are followed but cannot control default limits of resources.

Option ***Upgrade your support plan*** is incorrect - Each support plan has a maximum limit set for different resources. If you want to raise the limit or quota above the default limit, open an online customer support request at no charge.

Option ***Create a service health alert*** is incorrect - *Service Health* provides personalized guidance and support when issues with Azure services affect you. It can notify you, help you understand the impact of issues, and keep you updated as the issue is resolved. Service alerts cannot help to increase default limits.

Question 40: **Incorrect**

```
1. Exam notes:
2. - For each of the following statements, check the checkbox if the statement is
   correct.
3. - Each correct selection is worth one point in the main exam.
```

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.

Statements	Yes	No
1. Run the script from a computer that runs Linux and has the Azure CLI tools installed.	○	○
2. Run the script from a computer that runs Mac OS and has PowerShell installed.	○	○
3. Run the script from a computer that runs macOS and has PowerShell Core installed.	○	○
4. Run the script from a computer that runs Windows OS and uses Azure Bash installed.	○	○
5. Run the script from a computer that runs Android OS and uses Azure Cloud Shell - Bash mode	○	○

- ☑ **Run the script from a computer that runs Android OS and uses Azure Cloud Shell - Bash mode.**

  (Incorrect)

- ☐ **Run the script from a computer that runs macOS and has PowerShell Core installed.**

  (Correct)

- ☑ **Run the script from a computer that runs Windows OS and uses Azure Bash installed.**

  (Incorrect)

- ☑ **Run the script from a computer that runs Linux and has the Azure CLI tools installed.**

  (Incorrect)

- ☐ **Run the script from a computer that runs Mac OS and has PowerShell installed.**

Explanation
Statement ***Run the script from a computer that runs macOS and has PowerShell Core installed*** is correct - Microsoft sees PowerShell Core as an evolution of PowerShell. The former is available as a cross-platform application, the latter only for Windows. The cross-platform nature of PowerShell Core means that scripts that you write will run on any supported operating system. You can write PowerShell Core scripts on Windows and use them on supported Mac OS X or Linux devices.

Statement ***Run the script from a computer that runs Linux and has the Azure CLI tools installed*** is incorrect - Azure CLI is a cross-platform command-line program that connects to Azure and executes administrative commands on Azure resources but with Azure CLI you can't execute PowerShell script.

Statement ***Run the script from a computer that runs Mac OS and has PowerShell installed*** is incorrect - PowerShell can be used for Windows OS only, MacOS users can use PowerShell Core which is a cross-platform version of PowerShell that runs on Windows, Linux or macOS.

Statement ***Run the script from a computer that runs Windows OS and uses Azure Bash installed*** is incorrect - Windows users can use one of these options:
- o Azure Command Line Interface (CLI) installed
- o Azure PowerShell installed
- o Azure CloudShell via Azure portal

Statement ***Run the script from a computer that runs Android OS and uses Azure Cloud Shell - Bash mode*** is incorrect - Azure Cloud Shell is a browser-based scripting environment in your portal. It provides the flexibility of choosing the shell experience that best suits the way you work. Linux users can opt for a Bash experience, while Windows users can opt for PowerShell. In this question, you are asked to execute the PowerShell script, you still can't run PowerShell scripts using bash (you need PowerShell mode).

Question 41: **Incorrect**
Which of the following is not an Azure app service type?

Select the correct option.

- **Mobile apps**
- **Web apps**
- **WebJobs**

(Incorrect)

- **API apps**
- **Desktop Apps**

(Correct)

Explanation
Correct answer is option ***Desktop Apps***

Azure App Service enables you to quickly and easily build web and mobile apps for any platform or device. With App Service, you can host the most common app service styles like:

- Web apps
- API apps
- WebJobs
- Mobile apps

Desktop apps are not supported by app services.

Reference: https://docs.microsoft.com/en-us/learn/modules/azure-compute-fundamentals/azure-app-services

Other options are not correct.

Web apps, API apps, WebJobs & Mobile apps are valid app service types.

Question 42: **Correct**
What's the easiest way for an organisation to combine security data from all of its monitoring tools into a single report that it can take action on?

Select the correct option.

- **Look through each security log daily and email a summary to your team**
- **Collect security data in Azure Sentinel**

(Correct)

- **Build a custom tool that collects security data and displays a report through a web application**

Explanation

Correct answer is option ***Collect security data in Azure Sentinel***

Azure Sentinel is Microsoft's cloud based SIEM. A SIEM aggregates security data from many different sources to provide additional capabilities for threat detection and responding to threats. It also provides capabilities for threat detection and response.
Reference: https://azure.microsoft.com/services/azure-sentinel/

Other options are not correct.

Option ***Build a custom tool that collects security data and displays a report through a web application*** is incorrect - Although you could take this approach, but Sentinel is a fully featured service on Azure that provides this functionality.

Option ***Look through each security log daily and email a summary to your team*** is incorrect - This approach is time-consuming. It might also delay important security events from being addressed.

Question 43: **Correct**

```
1. Exam note:
2. - Each correct selection is worth one point in the main exam.
```

A support engineer plans to perform several Azure managements 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?

- ☐ **Azure Resource Explorer**
- ☑ **Windows PowerShell**

  (Correct)

- ☐ **Network and Sharing Center**
- ☑ **Command Prompt**

  (Correct)

- ☐ **Windows Defender Firewall**

Explanation
Correct answers are option ***Command Prompt*** & option ***Windows PowerShell***.

For Windows, the Azure CLI is installed via an MSI, which gives you access to the CLI through the Windows Command Prompt (CMD) or PowerShell.

Reference: https://docs.microsoft.com/en-us/cli/azure/install-azure-cli-windows

Other options are not correct.

Question 44: **Correct**
You want to orchestrate a workflow by using APIs from several well-known services.

Which is the best option for this scenario?

- **Azure Kubernetes Service**
- **Azure App Service**
- **Azure Functions**
- **Azure Logic Apps**

(Correct)

Explanation
Keywords: *orchestrate a workflow => Azure Logic Apps*

Correct answer is option ***Azure Logic Apps***

Azure Logic Apps makes it easy to create a workflow across well-known services with less effort than writing code and manually orchestrating all the steps yourself.

Other options are not correct.

Option ***Azure Functions*** is incorrect - Azure Functions could be used, but it might require more effort to research the APIs, write the code, and manually orchestrate the services. In this scenario, Functions are not the best option.

Option ***Azure App Service*** is incorrect - With App services, you need to write and deploy code on VMs which require more resources, effort, and cost to solve this problem.

Option ***Azure Kubernetes Service*** is incorrect - *Kubernetes* is open-source orchestration software for deploying, managing, and scaling containers. You can write and deploy code in a container and manage it by Kubernetes, but this is a huge effort to solve this problem, which can be easily solved with Logic apps without writing code.

Question 45: **Incorrect**

```
Exam notes:
- For each of the following statements, check the checkbox if the statement is correct.
- Each correct selection is worth one point in the main exam.
```

	Statements	Yes	No
1.	To implement an Azure multi-factor authentication (MFA) solution, you must sync on-premises identities to the cloud.	○	○
2.	Two valid methods for Azure multi-factor authentication (MFA) are picture identification and a passport number.	○	○
3.	Azure multi-factor authentication (MFA) can be required for administrative and non-administrative user accounts.	○	○

- ☑ **Two valid methods for Azure multi-factor authentication (MFA) are picture identification and a passport number.**

  (Incorrect)

- ☐ **Azure multi-factor authentication (MFA) can be required for administrative and non-administrative user accounts.**

  (Correct)

- ☑ **To implement an Azure multi-factor authentication (MFA) solution, you must sync on-premises identities to the cloud.**

  (Incorrect)

Explanation

Statement ***To implement an Azure multi-factor authentication (MFA) solution, you must sync on-premises identities to the cloud*** is incorrect - It is not a must-have requirement that you must deploy a federation solution or sync on-premises identities to the cloud to implement multi-factor authentication. You can have a cloud-only environment and use MFA.

Statement ***Two valid methods for Azure multi-factor authentication (MFA) are picture identification and a passport number*** is incorrect - Picture identification and passport numbers are not valid MFA authentication methods. Valid methods are Password, Microsoft Authenticator App, SMS, Voice, FIDO2 security key, OATH tokens, and Windows Hello for Business.
Reference: https://docs.microsoft.com/en-us/azure/active-directory/authentication/concept-authentication-methods

Statement ***Azure multi-factor authentication (MFA) can be required for administrative and non-administrative user accounts*** is correct - You can configure MFA to be required for administrator accounts only or you can configure MFA for any user account.
Reference: https://docs.microsoft.com/en-us/azure/active-directory/authentication/howto-mfa-getstarted

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Question 46: **Incorrect**
A company wants to quickly manage its individual IoT devices by using a web-based user interface.

Which IoT technology should it choose?

- **IoT Hub**

  (Incorrect)

- **Azure Sphere**
- **IoT Central**

  (Correct)

- **Azure Sentinel**

Explanation
Correct answer is option ***IoT Central***

IoT Central quickly creates a web-based management portal to enable reporting and communication with IoT devices. The visual user interface (UI) makes it easy to quickly connect new devices and watch as they begin sending telemetry or error messages.
Reference: https://azure.microsoft.com/services/iot-central/

Other options are not correct.

Option ***IoT Hub*** is incorrect - *An IoT hub* allows bi-directional communication between IoT applications and the devices it manages. It does not provide a graphical user interface for device management.
Reference: https://azure.microsoft.com/en-in/services/iot-hub/

Option ***Azure Sphere*** is incorrect - *Azure Sphere* is hardware with an operating system, which has built-in communication and security features for internet-connected devices. It does not provide a graphical user interface for device management.
Reference: https://azure.microsoft.com/services/azure-sphere/

Option ***Azure Sentinel*** is incorrect - *Azure Sentinel* is Microsoft's cloud-based SIEM system. which aggregates security data from many different sources. It does not provide a graphical user interface for device management.
Reference: https://azure.microsoft.com/services/azure-sentinel/

Question 47: **Correct**
You are planning to provision Infrastructure as a Service (IaaS) resources in Azure.

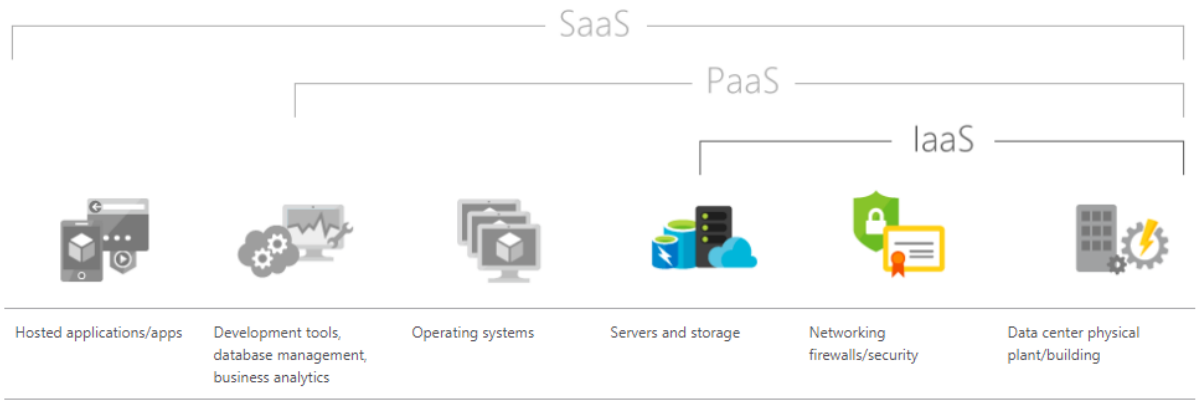
Which one of the following resources is an example of IaaS?

- **Azure Logic App**
- **Azure SQL Database**
- **Azure Web App**
- **Azure Virtual Machine**

(Correct)

Explanation
Correct answer is option ***Azure Virtual Machine***

Azure Virtual Machine is an Infrastructure as a Service (IaaS) offering. 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.
Reference: https://azure.microsoft.com/en-us/overview/what-is-iaas/



Reference: https://azure.microsoft.com/en-us/overview/what-is-iaas/

Other answers are not correct.

Option ***Azure Web App*** & ***Azure SQL Database*** is a *Platform as a Service (PaaS)* offering.

Option ***Azure Logic App*** is a *SaaS* offering.

Question 48: **Incorrect**
What explains details about the personal data Microsoft processes, how Microsoft processes it, and for what purposes?

Select the correct option.

- **Microsoft Privacy Statement**

(Correct)

- **Azure Service Health**
- **Compliance Manager**
- **Azure Security Center**

(Incorrect)

Explanation
Keywords: personal data process, how and what *=> Privacy Statement*

Correct answer is option ***Microsoft Privacy Statement***

The Microsoft privacy statement explains what personal data Microsoft processes, how Microsoft processes it, and for what purposes.
Reference: https://privacy.microsoft.com/en-US/privacystatement

Other options are not correct.

Option ***Compliance Manager*** is incorrect - *Compliance Manager* is a risk assessment dashboard that provides ongoing risk assessments with a risk-based score reference displayed in a dashboard view for regulations and standards.
Reference: https://docs.microsoft.com/en-us/microsoft-365/compliance/compliance-manager

Option ***Azure Security Center*** is incorrect - *Azure Security Center* is a monitoring service that provides threat protection across all of your services both in Azure, and on-premises.
Reference: https://docs.microsoft.com/en-us/azure/security-center/security-center-introduction

Option ***Azure Service Health*** is incorrect - *Azure Service Health* helps you prepare for planned maintenance and changes that could affect the availability of your resources. It also provides personalized guidance and support when issues with Azure services affect you. It can notify you, help you understand the impact of issues, and keep you updated as the issue is resolved.
Reference: https://azure.microsoft.com/en-us/features/service-health/

Question 49: **Incorrect**

```
1. Exam notes:
2. - For each of the following statements, check the checkbox if the statement is
   correct.
3. - Each correct selection is worth one point in the main exam.
```

Which of the following statements are correct for Azure Service Level Agreements (SLA)?

Statements	Yes	No
1. All paying Azure customers can claim a credit if their monthly uptime percentage is below the guaranteed amount as per SLA	○	○
2. The Service Level Agreement (SLA) guaranteed uptime for paid Azure Services is at least 99.9%	○	○
3. Companies can increase SLA guaranteed uptime by adding Azure Resources to multiple regions	○	○
4. Companies can increase the SLA guaranteed uptime by purchasing multiple subscriptions	○	○
5. There are no SLA guarantees when a service is in General Availability (GA)	○	○

- ☑ **Companies can increase SLA guaranteed uptime by adding Azure Resources to multiple regions**

  (Correct)

- ☐ **Companies can increase the SLA guaranteed uptime by purchasing multiple subscriptions**
- ☑ **A Service Level Agreement (SLA) guaranteed uptime for paid Azure services is at least 99.9%**

  (Incorrect)

- ☐ **There are no SLA guarantees when a service is in General Availability (GA)**
- ☑ **All paying Azure customers can claim a credit if their monthly uptime percentage is below the guaranteed amount as per SLA**

  (Correct)

Explanation

Only the following statements are correct for Azure Service Level Agreements (SLA):

- ***All paying Azure customers can claim a credit if their monthly uptime percentage is below the guaranteed amount as per SLA***

- ***Companies can increase SLA guaranteed uptime by adding Azure Resources to multiple regions***

Please see the **Service-level agreements** page for SLA details of different Azure services.

Question 50: **Correct**
Which of the following could require both a password and phone verification for full authentication?

Select the correct option.

- **Application Gateway**
- **Azure Firewall**
- **Use single sign-on (SSO)**
- **Multi-Factor Authentication (MFA)**

(Correct)

Explanation
Keywords: *multi-step authentication => MFA*

Correct answer is option ***Multi-Factor Authentication (MFA)***

MFA provides additional security for your identities by requiring two or more elements for full authentication. These elements fall into three categories:
o ***Something you know*** could be a password or the answer to a security question.
o ***Something you possess*** might be a mobile app that receives a notification, or a token-generating device.
o ***Something you are*** is typically some sort of biometric property, such as a fingerprint or face scan used on many mobile devices.
Reference: https://docs.microsoft.com/en-us/azure/active-directory/authentication/overview-authentication#azure-ad-multi-factor-authentication

Other options are not correct.

Option ***Use single sign-on (SSO)*** is incorrect - 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.

Option ***Application Gateway*** is incorrect - *Application Gateway* is a load balancer that enables you to manage traffic to your web applications. It's not a mechanism of authentication.
Reference: https://docs.microsoft.com/en-us/azure/application-gateway/how-application-gateway-works

Option ***Azure Firewall*** is incorrect - *Firewall* is a network security service to protect your Azure Virtual Network resources. It's not a mechanism of authentication.
Reference: https://docs.microsoft.com/en-us/azure/firewall/overview

---

Question 51: **Incorrect**
A company has a set of Virtual machines defined in Azure. One of the machines was down due to issues with the underlying Azure Infrastructure. The server was down for an extended period of time and breached the standard SLA defined by Microsoft.

How will Microsoft reimburse the downtime cost?

- **By directly sending money to the customer's bank account**
- **By providing service credits to the customer**

(Correct)

- **By providing a service free of cost to use for a specific duration of time**
- **By spinning up another Virtual Machine free of cost for the client**

(Incorrect)

Explanation
Keywords: *Microsoft SLA breached => You will get service credits*

Correct answer is option ***By providing service credits to the customer***

SLAs describes how Microsoft will respond if an Azure product or service fails to perform to its governing SLA's specification. Customers may have a discount applied to their Azure bill, in form of service credit, as compensation for an under-performing Azure product or service. The table below explains in more detail.

Monthly Uptime Percentage	Service Credit Percentage
< 99.9	10
< 99	25
< 95	100

Azure does not provide SLAs for many services under the Free or Shared tiers. Also, free products such as Azure Advisor do not typically have an SLA.

Reference: https://azure.microsoft.com/en-us/support/legal/sla/

Other options are not correct.

Question 52: **Incorrect**

```
1. Exam note:
2. - Each correct selection is worth one point in the main exam.
```

Which of the following statements are correct in the context of Azure Support Plans?

Select two correct options. `

- ☐ **You can create up to 10 Azure free accounts by using the same Microsoft account**
- ☐ **Azure Free account can have an unlimited number of web apps**
- ☐ **Azure Free account has spending limits**

(Correct)

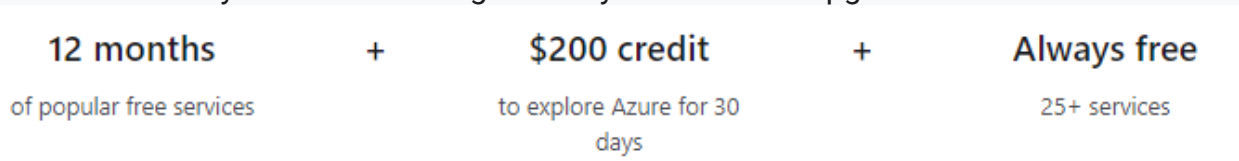
- ☐ **Support from MSDN forum is only provided to companies that have a pay-as-you-go subscription**
- ☑ **Azure Free account has a limit for the amount of data that can be uploaded to Azure**

(Correct)

- ☐ **A standard support plan is included in an Azure free account**
- ☑ **If you are using an Azure free account, you will only be exposed to a subset of Azure services.**

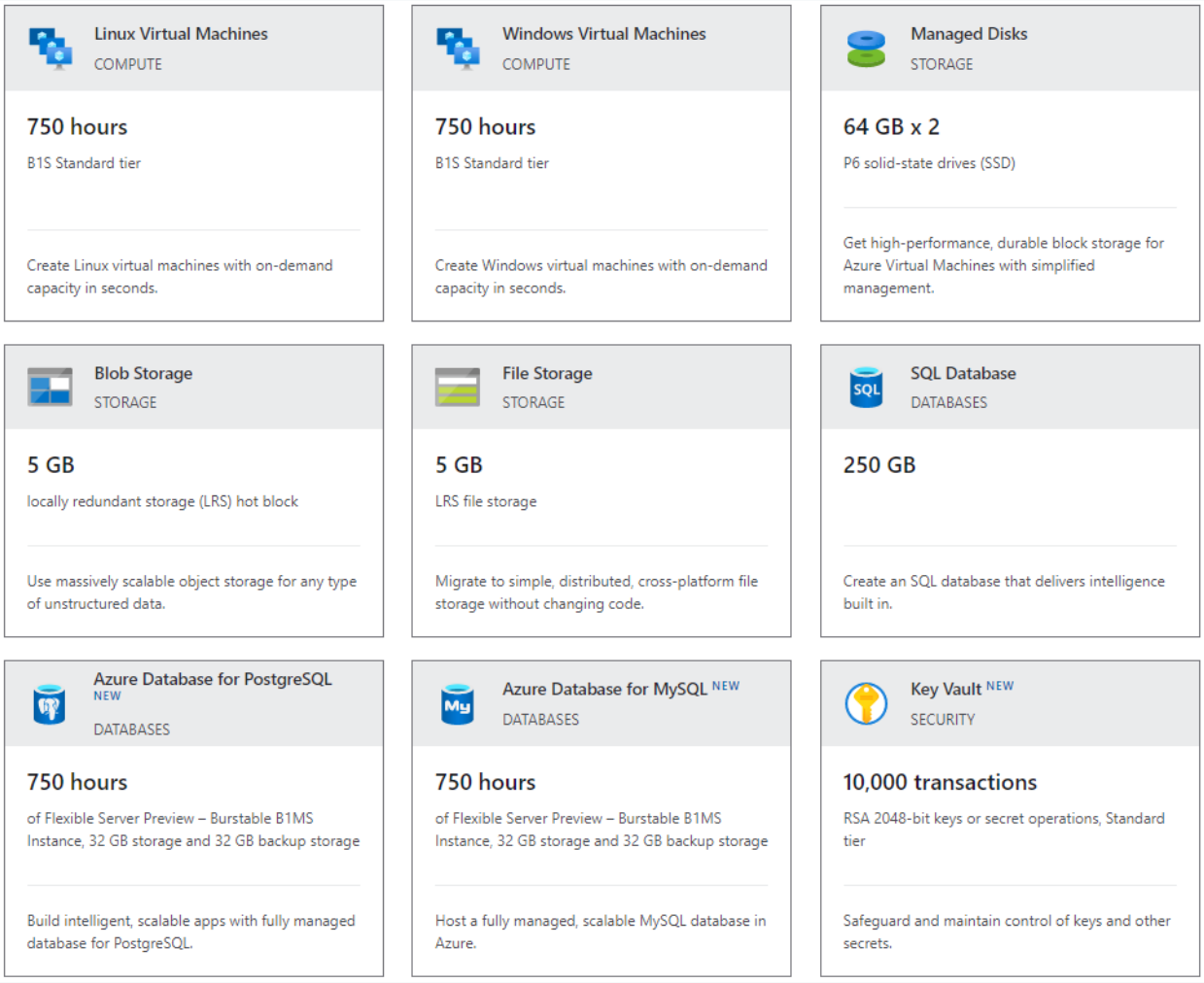
(Incorrect)

Explanation
Correct answers are
- Option ***Azure Free account has spending limits*** **-** With your Azure free account, you get all of this – and you won't be charged until you choose to upgrade.



Reference: https://azure.microsoft.com/en-au/free

- Option ***Azure Free account has a limit for the amount of data that can be uploaded to Azure*** - Azure free account comes with different free services with limitations, eg. see following services



Reference: https://azure.microsoft.com/en-au/free

Other options are incorrect. Please see *the Azure support plans* page for a detailed comparison of different support plans.

Question 53: **Correct**
Which of the following should be used when the primary concern is to perform work in response to an event (often via a REST command) that needs a response in a few seconds?

Select the correct option.

- **Azure Functions**

  (Correct)

- **Azure Container**
- **Logic App**
- **Azure App Service**

Explanation
Keywords: *response to an event, response in a few seconds => use Functions*

Correct answer is option ***Azure Functions***

Azure Functions are used when you need to perform work in response to an event (often via a REST request), timer, or message from another Azure service, and when that work can be completed quickly, within seconds or less. ***Function*** is a serverless implementation, provides a runtime environment to execute code, written in any language the user is comfortable.
Reference: https://azure.microsoft.com/en-us/services/functions/

Other options are not correct.

Option ***Azure App Service*** is incorrect - *Azure App Service* enables you to quickly and easily build web and mobile apps for any platform or device. It's good to build fully functional apps, but to implement RESTful APIs to respond in few seconds, Functions is a better choice, as it's faster and cheaper to build functions, and easy to manage.
Reference: https://docs.microsoft.com/en-us/azure/app-service/overview

Option ***Logic App*** is incorrect - *Logic Apps* is a cloud service that helps you automate and orchestrate *tasks, business processes, and workflows*.
Reference: https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-overview

Option ***Azure Container*** is incorrect - *Containers* provide a consistent, isolated execution environment for applications. They're similar to VMs except they don't require a guest operating system. Instead, the application and all its dependencies is packaged into a "container" and then a standard runtime environment is used to execute the app.
Reference: https://docs.microsoft.com/en-us/azure/container-instances/container-instances-overview

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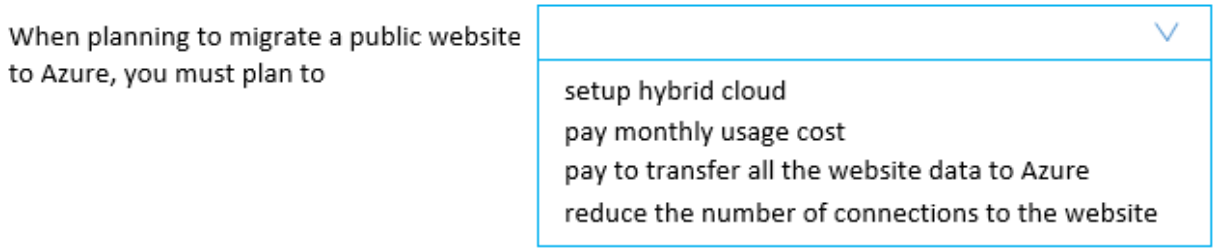
Question 54: **Incorrect**

```
1. Exam notes:
2. - This question requires you to select the correct option from the dropdown.
3. - Udemy does not support dropdown selection, but in the actual exam, you will
   be allowed to use dropdown.
```



- **reduce the number of connections to the website**
- **pay to transfer all the website data to Azure**

(Incorrect)

- **setup hybrid cloud**
- **pay monthly usage cost**

(Correct)

Explanation
Correct answer is option ***pay monthly usage cost***

To use the public cloud, you should plan for monthly usage costs for different services you will be using on the public cloud. This cost falls under operational expenditure.

Other options are not correct.

Option ***setup hybrid cloud*** is incorrect - It's not a must-have requirement to set up a hybrid cloud to use public cloud, as in the hybrid cloud, you will need to set up a private datacenter also.

Option ***pay to transfer all the website data to Azure*** is incorrect - You sometimes pay for data transfer charges, but this is not the only expense to use the cloud, you will pay for usage cost of different services, so the best answer is "*pay monthly usage cost*".

Option ***reduce the number of connections to the website*** is incorrect - The number of website connections depends on user website userbase, and nothing related to cloud hosting.

Question 55: **Incorrect**
Which of the following choices would not be used to automate a CI/CD process?

Select the correct option.

- **GitHub Actions**

  (Incorrect)

- **Azure Pipelines**
- **Azure Boards**

  (Correct)

Explanation
Correct answer is option ***Azure Boards***

Azure Boards is an agile project management tool. It would not be used to automate a CI/CD process. With the Azure Boards web service, teams can manage their software projects. It provides a rich set of capabilities including native support for Scrum and Kanban, customizable dashboards, and integrated reporting. These tools can scale as your business grows.
Reference: https://docs.microsoft.com/en-us/azure/devops/boards/get-started/what-is-azure-boards

Other options are not correct as ***GitHub Actions & Azure Pipelines*** are used to automate a CI/CD process.

Question 56: **Incorrect**
What feature of a system makes it elastic?

Select the correct option.

- **The ability to withstand denial of service attacks**
- **The ability to increase and reduce capacity based on actual demand**

(Correct)

- **The ability to stay up (available) while updates are being made to the system**

(Incorrect)

- **The ability to heal itself after a crash**

Explanation
Correct answer is option ***The ability to increase and reduce capacity based on actual demand***

Elasticity is the ability to automatically or dynamically increase or decrease resources as needed. Elastic resources match the current needs and add or remove resources automatically to meet future needs when it's needed.
Reference: https://azure.microsoft.com/en-us/overview/what-is-elastic-computing/

Other options are not correct.

Option ***The ability to heal itself after a crash*** is incorrect - Ability to heal itself after a crash is called Disaster Recovery. ***Disaster recovery*** is the ability to recover from an event that has taken down a cloud service.
Reference: https://azure.microsoft.com/en-us/solutions/backup-and-disaster-recovery/

Option ***The ability to withstand denial of service attacks*** is incorrect - Its a security feature. DDoS attacks attempt to overwhelm and exhaust an application's resources, making the application slow or unresponsive to legitimate users. Azure DDoS protection, combined with application design best practices, provide defense against DDoS attacks.
Reference: https://docs.microsoft.com/en-us/azure/virtual-network/ddos-protection-overview

Option ***The ability to stay up (available) while updates are being made to the system*** is incorrect - Keeping the system up and running at the time of updates is achieved by Availability set's Update domain. ***Update domains*** are a logical section of the datacenter, and they are implemented with software and logic. When a maintenance event occurs (such as a performance update or critical security patch applied to the host), the update

is sequenced through update domains.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets

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Question 57: **Incorrect**

```
1. Exam note:
2. - Each correct selection is worth one point in the main exam.
```

What are the characteristics of the public cloud?

Select two correct options.

- ☐ **Dedicated Hardware**
- ☐ **Unsecured connections**
- ☑ **Limited storage**

  (Incorrect)

- ☐ **Self-service management**

  (Correct)

- ☑ **Metered pricing**

  (Correct)

Explanation
Public Cloud is a computing service offered by third-party providers (***eg. Azure***) over the public Internet, making them available to anyone who wants to use or purchase them. Public clouds can save companies from the expensive costs of having to purchase, manage, and maintain on-premises hardware and application infrastructure
Reference: https://azure.microsoft.com/en-us/overview/what-is-a-public-cloud/

Correct answers are option ***Metered pricing*** & option ***Self-service management***

Option ***Metered pricing*** - Azure is a public cloud provider and doesn't directly bill based on the resource cost. Charges for a resource are calculated by using one or more meters. Meters are used to track a resource's usage throughout its lifetime. These meters are then used to calculate the bill.
Further details: https://docs.microsoft.com/en-us/azure/cost-management-billing/understand/review-individual-bill

Option ***Self-service management*** - Azure is a public cloud provider. All hardware, software, and other supporting infrastructure is owned and managed by the Azure. You access these services and manage your account using a web browser, called Azure Portal.

Other options are not correct.

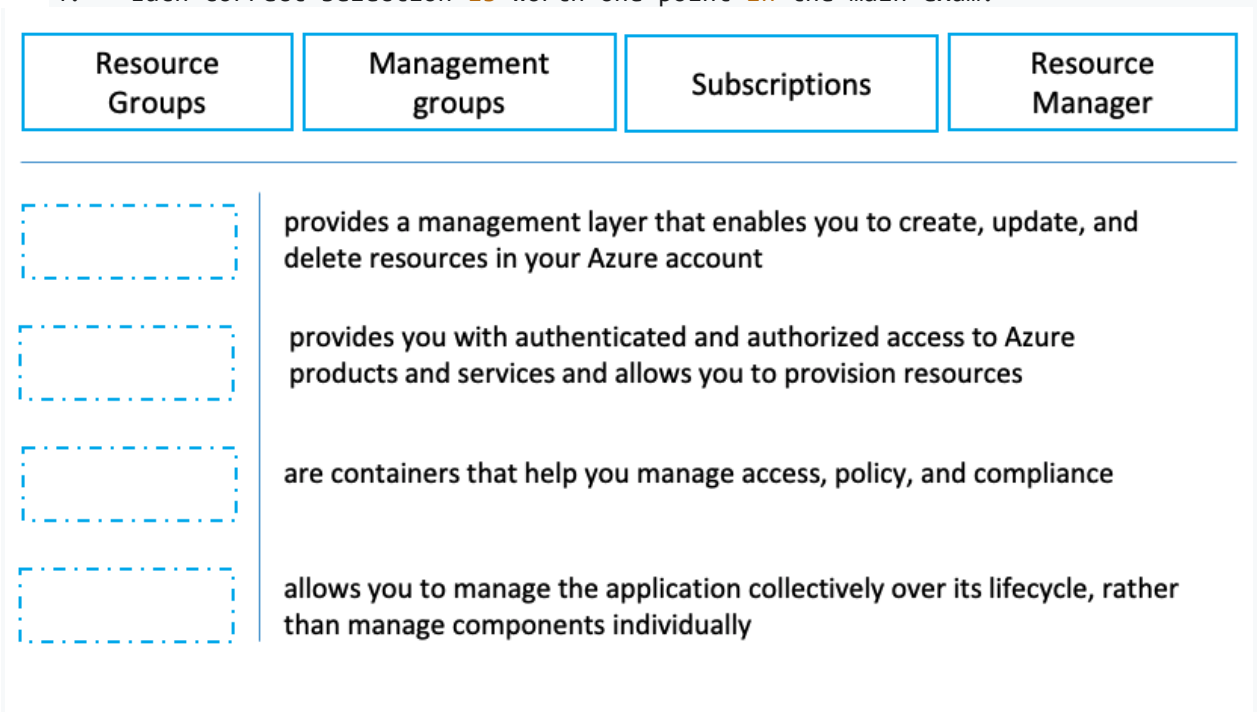
Option ***Limited storage*** is incorrect - Azure cloud provides unlimited storage, which you can use on a need basis.

Option ***Unsecured connections*** is incorrect - Azure cloud provides a wide range of policies, services that control and strengthen your security posture overall, helping protect your data, apps, and infrastructure from potential threats.

Option ***Dedicated Hardware*** is incorrect - Azure cloud uses a pool of resources, shared by different clients, and does not always guarantee that client will get Dedicated hardware.

Question 58: **Correct**

```
1. Exam notes:
2. - Drag the appropriate term from the row on the top to its description on the
   bottom.
3. - Udemy does not support drag & drop, but in the actual exam, you will be
   allowed.
4. - Each correct selection is worth one point in the main exam.
```



- ***Resource Groups*** **- provides you with authenticated and authorized access to Azure products and services and allows you to provision resources**
  Management groups **- allows you to manage the application collectively over its lifecycle, rather than manage components individually**
  Subscriptions **- are containers that help you manage access, policy, and compliance**
  Resource Manager **- provides a management layer that enables you to create, update, and delete resources in your Azure account**
- ***Resource Groups*** **- allows you to manage the application collectively over its lifecycle, rather than manage components individually**
  Management groups **- are containers that help you manage access, policy, and compliance**
  Subscriptions **- provides a management layer that enables you to create, update, and delete resources in your Azure account**
  Resource Manager **- provides you with authenticated and authorized access to Azure products and services and allows you to provision resources**
- ***Resource Groups*** **- allows you to manage the application collectively over its lifecycle, rather than manage components individually**
  Management groups **- are containers that help you manage access, policy, and compliance**
  Subscriptions **- provides you with authenticated and authorized access to Azure products and services and allows you to provision resources**
  Resource Manager **- provides a management layer that enables you to create, update, and delete resources in your Azure account**

(Correct)

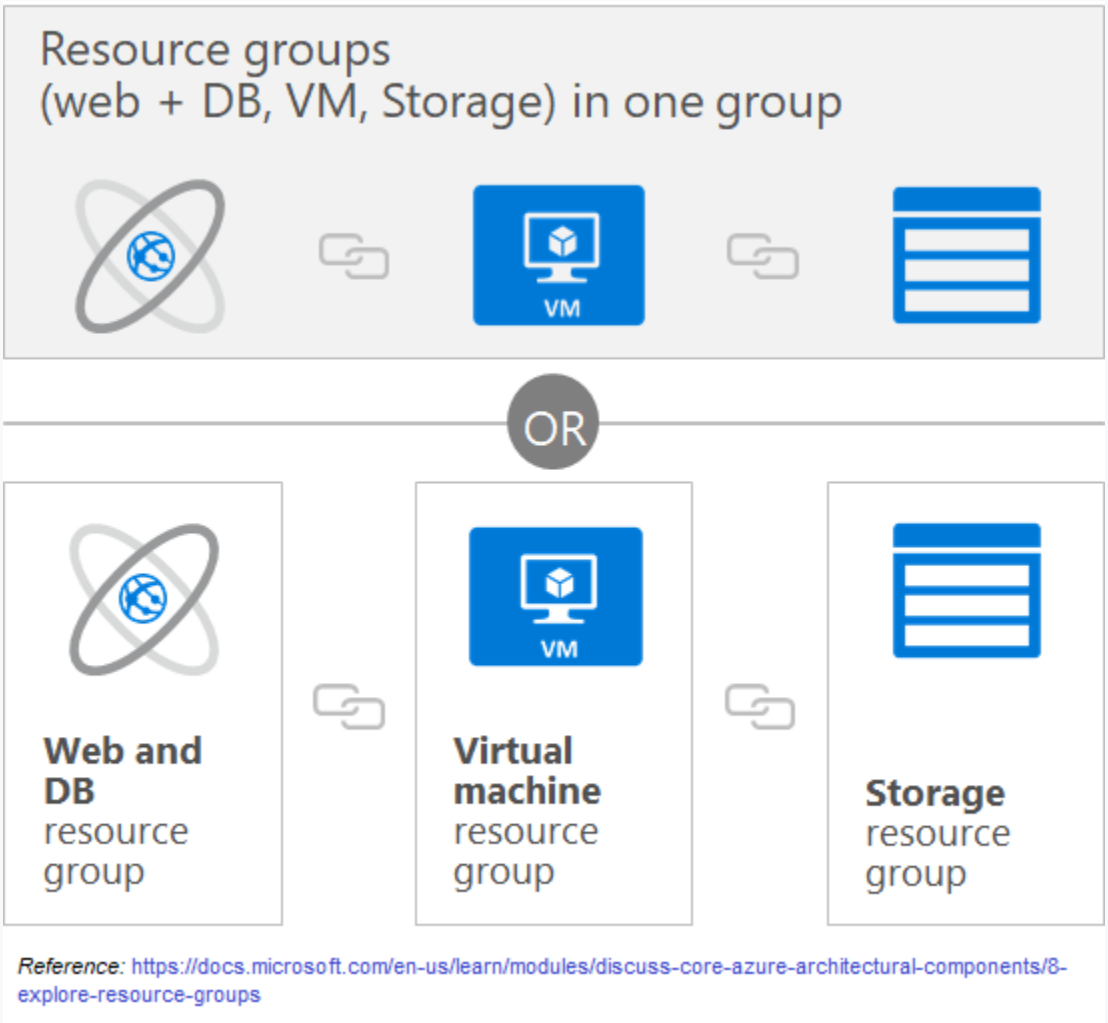
- ***Resource Groups*** **- provides you with authenticated and authorized access to Azure products and services and allows you to provision resources**
  Management groups **- allows you to manage the application collectively over its lifecycle, rather than manage components individually**
  Subscriptions **- provides a management layer that enables you to create, update, and delete resources in your Azure account**
  Resource Manager **- are containers that help you manage access, policy, and compliance**

Explanation
Correct answer is *option*
Resource Groups *- allows you to manage the application collectively over its lifecycle, rather than manage components individually*
Management groups *- are containers that help you manage access, policy, and compliance*
Subscriptions *- provides you with authenticated and authorized access to Azure products*

and services and allows you to provision resources
Resource Manager *- provides a management layer that enables you to create, update, and delete resources in your Azure account*

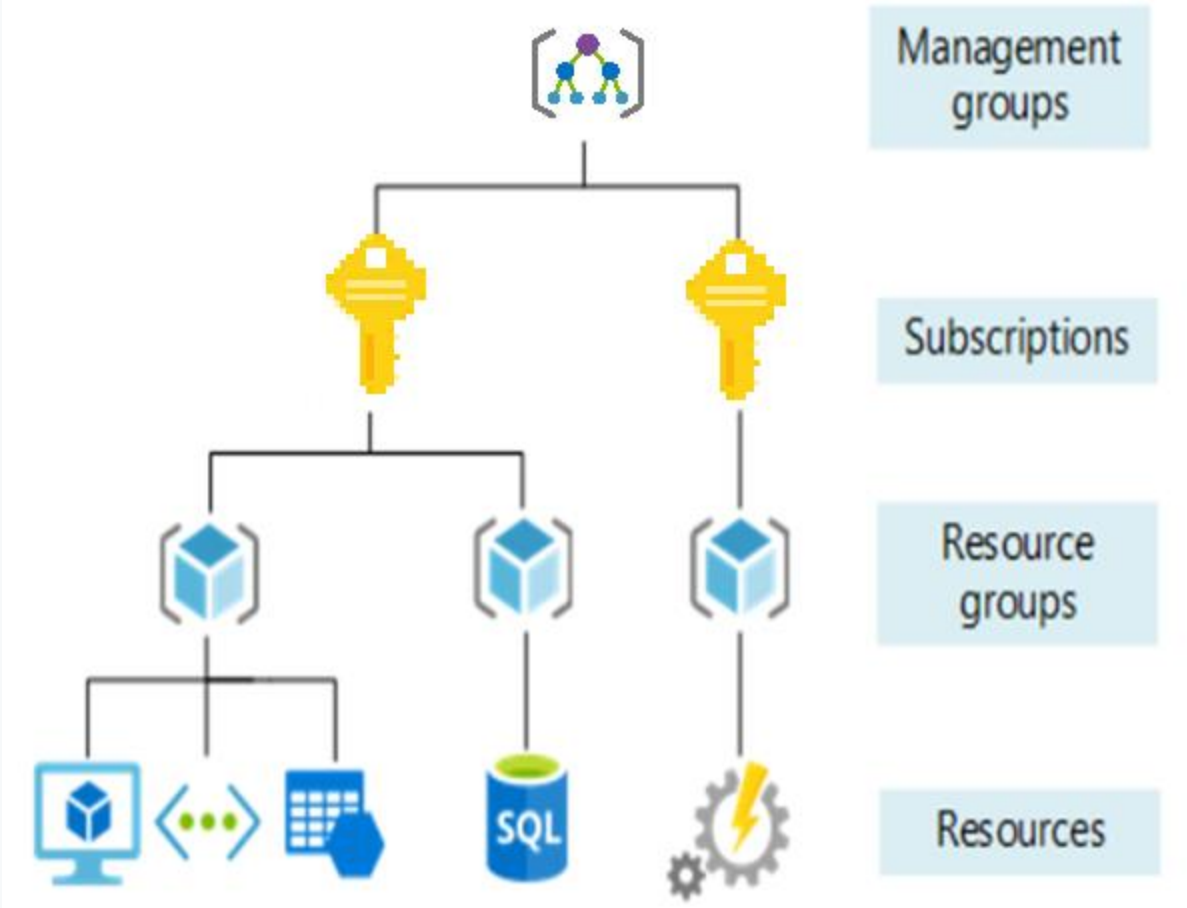
Detailed explanation:

Resource Groups is a unit of management for resources in Azure, allows you to logically group Azure Resources together. This allows you to manage the application collectively over its lifecycle, rather than manage components individually.
Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview#resource-groups



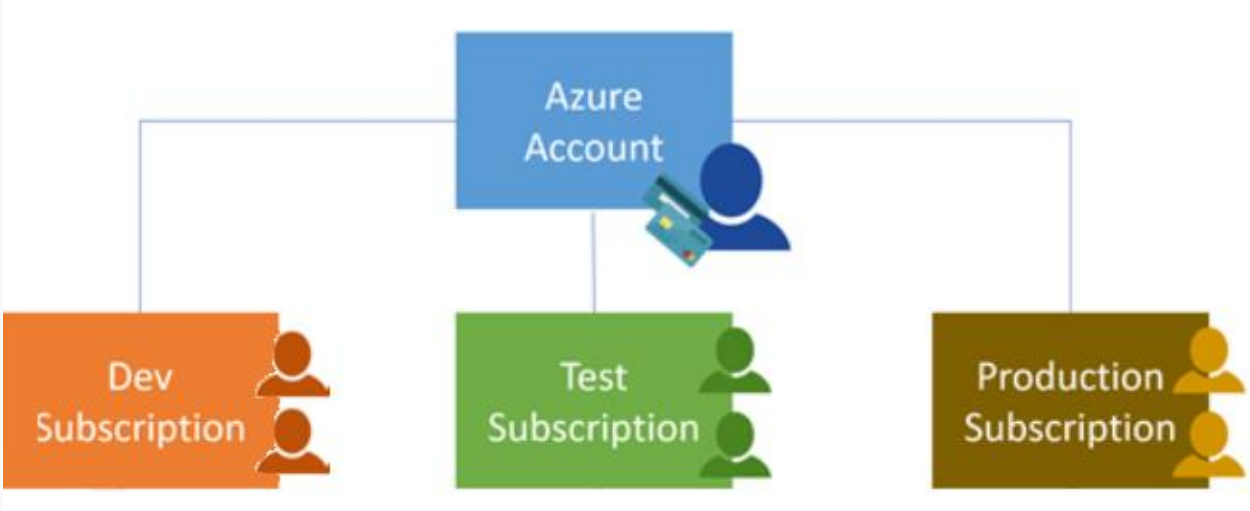
Reference: https://docs.microsoft.com/en-us/learn/modules/discuss-core-azure-architectural-components/8-explore-resource-groups

Management groups are containers that help you manage access, policy, and compliance for *multiple subscriptions*. All subscriptions in a management group automatically inherit the conditions applied to the management group.
Reference: https://docs.microsoft.com/en-us/azure/governance/management-groups/overview



Reference: https://docs.microsoft.com/en-us/learn/modules/examine-azure-subscriptions/5-explore-management-groups

Azure subscriptions is a logical unit of Azure services that links to an Azure account. An account can have one subscription or multiple subscriptions that have different billing models and to which you apply different access-management policies. You can use Azure subscriptions to define boundaries around Azure products, services, and resources.



Reference: https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/decision-guides/subscriptions/

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.
Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview

Other options are not correct.

Question 59: **Correct**
A company is planning to set up a solution in Azure to provide analytics services for BI and machine learning needs.

Which of the following would be best suited for this requirement?

- **Azure Load Balancer**
- **Azure Synapse**

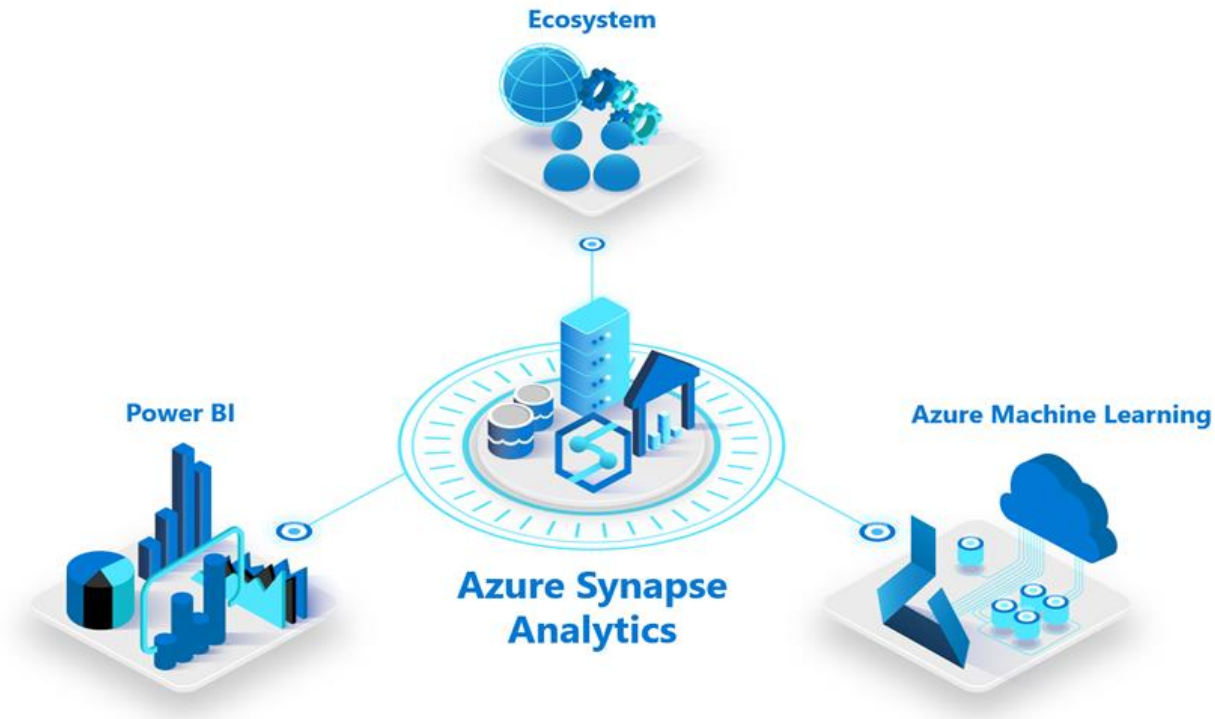
  (Correct)

- **Azure Content Delivery Network**
- **Azure Cosmos DB**

Explanation
Keywords: *BI + Machine Learning analytics => Synapses*

Correct answer is option ***Azure Synapse***

Azure Synapse Analytics is a limitless analytics service that brings together enterprise data warehousing and big data analytics. It gives you the freedom to query data on your terms, using either serverless on-demand or provisioned resources at scale.



Reference: https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-overview-what-is

Other options are not correct.

Option ***Azure Content Delivery Network*** is incorrect - CDN is a distributed network of servers that can efficiently deliver web content to users. It is a way to get content to users in their local region to minimize latency.
Reference: https://azure.microsoft.com/en-us/services/cdn/

Option ***Azure Load Balancer*** is incorrect - *Azure Load Balancer* provides high availability by distributing incoming traffic among healthy Virtual Machines.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-load-balancer

Option ***Azure Cosmos DB*** is incorrect - *Azure Cosmos* is a schema-less DB that enables you to elastically and independently scale throughput and storage across any number of Azure's geographic regions.
Reference: https://docs.microsoft.com/en-in/azure/cosmos-db/introduction

Question 60: **Correct**
Which of the following terms refers to "*making a service available with no downtime for an extended period of time*"?

Select the correct option.

- **High availability**

  (Correct)

- **Elasticity**
- **Agility**
- **Fault tolerance**

Explanation
Keywords: *Service available, no downtime => High Availability*

Correct answer is option ***High availability***

High Availability is the ability to keep services up and running for long periods of time, with very little downtime. Workloads are typically spread across different virtual machines to gain high throughput, performance, and to create redundancy in case a service is impacted due to an update or other event.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machines/availability

Other options are not correct.

Option ***Agility*** is incorrect - *Agility* is the ability to respond to change rapidly based on changes to market or environment, ensuring fast time to market.
Reference: https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/strategy/business-outcomes/agility-outcomes

Option ***Elasticity*** is incorrect - Elasticity is the ability to automatically or dynamically increase or decrease resources as needed.
Reference: https://azure.microsoft.com/en-us/overview/what-is-elastic-computing/

Option ***Fault tolerance*** is incorrect - Fault tolerance is the ability to remain up and running even in the event of a component (or service) no longer functioning.