Question 1: **Correct**

Your organization has millions of log entries that it wants to analyze. Which option would be ideal for analysis?

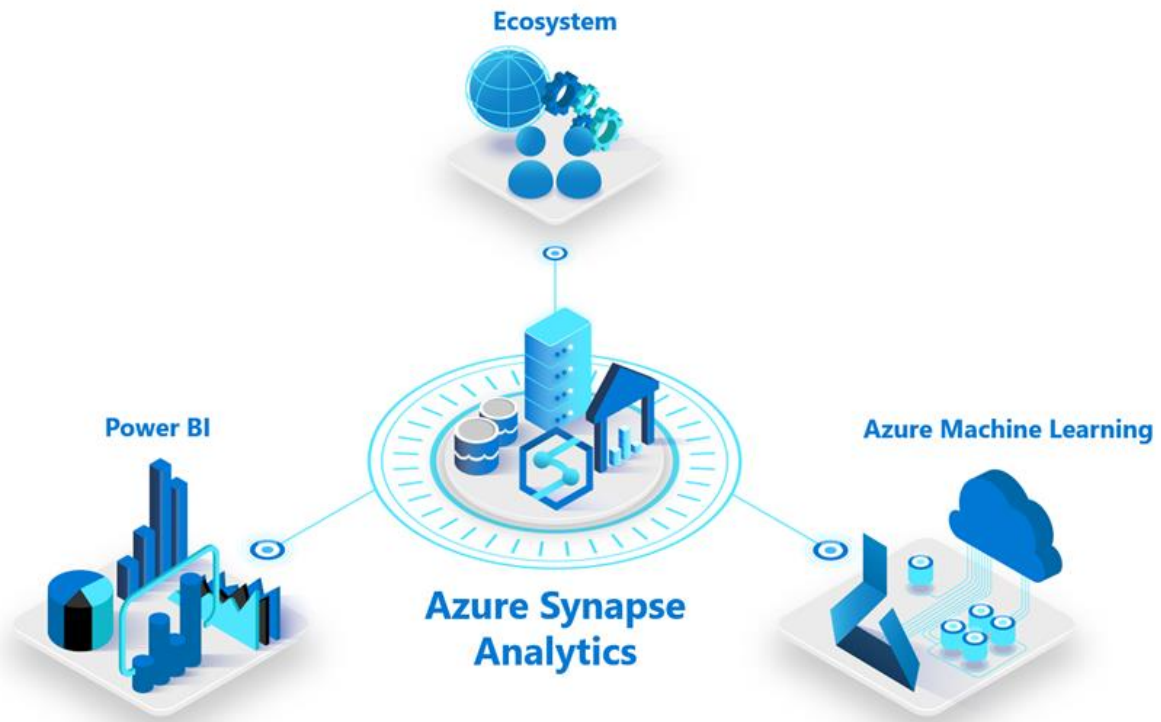Select the correct option.

- ○

  Azure Database for PostgreSQL

- ○

  Azure SQL Database

- ○

  Azure Cosmos DB

- ◉

  Azure Synapse Analytics

  (Correct)

Explanation

Correct answer is option *Azure Synapse Analytics*

Azure Synapse Analytics is the logical choice for analyzing large volumes of data. It gives you the freedom to query data on your terms, using either serverless on-demand or provisioned resources - at scale.

Ecosystem

Power BI

Azure Machine Learning

Azure Synapse
Analytics

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 Cosmos DB*** is incorrect - *Azure Cosmos DB* is a globally distributed, schema-less database service that enables you to elastically and independently scale throughput and storage across any number of Azure's geographic regions. Cosmos DB is not an ideal option to collect millions of logs.
Reference: https://docs.microsoft.com/en-in/azure/cosmos-db/introduction

Option ***Azure SQL Database*** is incorrect - 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. SQL Database is not an ideal option to collect millions of logs.
Reference: https://docs.microsoft.com/en-us/azure/azure-sql/database/active-geo-replication-overview

Option ***Azure Database for PostgreSQL*** is incorrect - PostgreSQL Database is not an ideal option to collect millions of logs.

Question 2: **Correct**

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

Which cloud deployment solution is used for
1. Azure Virtual Machines
2. Azure SQL Databases

Select two correct options.

- ☑

  Infrastructure as a Service (IaaS)

  (Correct)

- ☐

  Serverless computing

- ☑

  Platform as a Service (PaaS)

  (Correct)

- ☐

  Software as a Service (SaaS)

- ☐

  Function as a Service (FaaS)

Explanation
Correct answers are

Option *Infrastructure as a Service (IaaS)* - Virtual machine hosting comes under IaaS
Option *Platform as a Service (PaaS)* - Azure SQL Databases is a PaaS offering
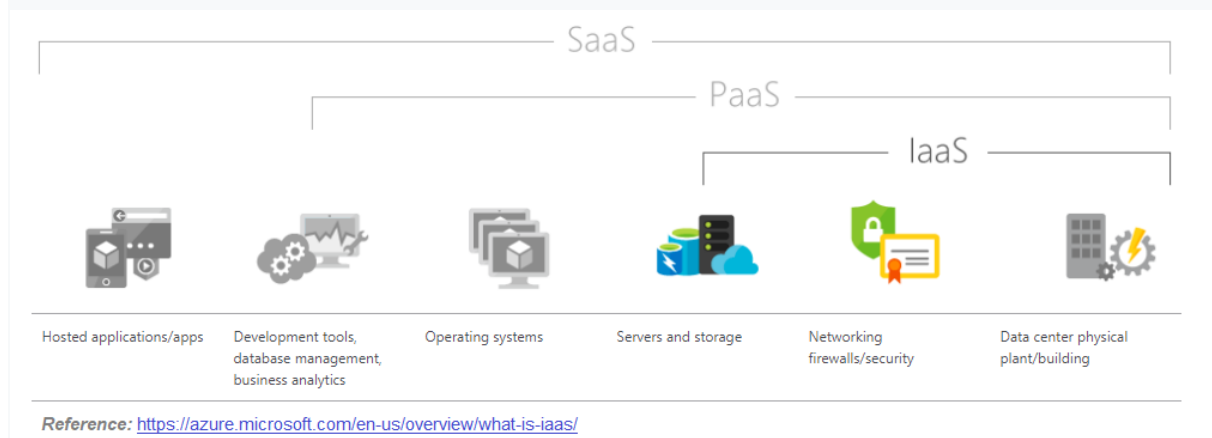
Infrastructure as a service (IaaS) is an instant computing infrastructure, provisioned, and managed over the internet. IaaS quickly scales up and down with demand, letting you pay only for what you use. It helps you avoid the expense and complexity of buying and managing your own physical servers and other datacenter infrastructure.
Reference: https://azure.microsoft.com/en-us/overview/what-is-iaas/

Platform as a service (PaaS) allows you to avoid the expense and complexity of

buying and managing 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/

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

Other options are not correct.

Option **Function as a Service (FaaS)** is incorrect - *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. Functions are ideal when you're only concerned with the code running your service and not the underlying platform or infrastructure.

Option **Software as a Service (SaaS)** is incorrect - *Software as a service (SaaS)* allows users to connect to and use cloud-based apps over the Internet. Common examples are email, calendaring, and office tools (such as Microsoft Office 365).
Reference: https://azure.microsoft.com/en-us/overview/what-is-saas/

Option **Serverless computing** is incorrect - *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/

Question 3: 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 al
       lowed to use dropdown.
```

Availability means [⌄]

A system that can scale up and scale down depending on customer demand
A system that has a single point of failure
The percentage of time a system responds properly to requests, expressed as a percentage over time
A system must have 100% uptime to be considered available

- ◉

  A system must have 100% uptime to be considered available

  (Incorrect)

- ○

  A system that has a single point of failure

- ○

  The percentage of time a system responds properly to requests, expressed as a percentage over time

  (Correct)

- ○

  A system that can scale up and scale down depending on customer demand

Explanation

Correct answer is option *The percentage of time a system responds properly to requests, expressed as a percentage over time*

The availability of a system is identified by the percentage of time a system responds properly to requests, expressed as a percentage over time. Azure provides different ways to achieve high availability of a system, like Availability Zones (99.99%) & Availability Sets (99.95%)

Reference: https://docs.microsoft.com/en-us/azure/virtual-machines/availability

Other options are not correct.

Option *A system must have 100% uptime to be considered available* is incorrect - 100% uptime is the desired state of a system, although public cloud provides 99.99% availability in Availability Zone, and always recommends to plan for disaster recovery.

Option *A system that has a single point of failure* is incorrect - A single point of failure is a part of a system that, if it fails, will stop the entire system from working.

Option *A system that can scale up and scale down depending on customer demand* is incorrect - Scaling up/down feature of a system is called elasticity. *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.

Question 4: **Incorrect**
Azure Cost Management can be used for?
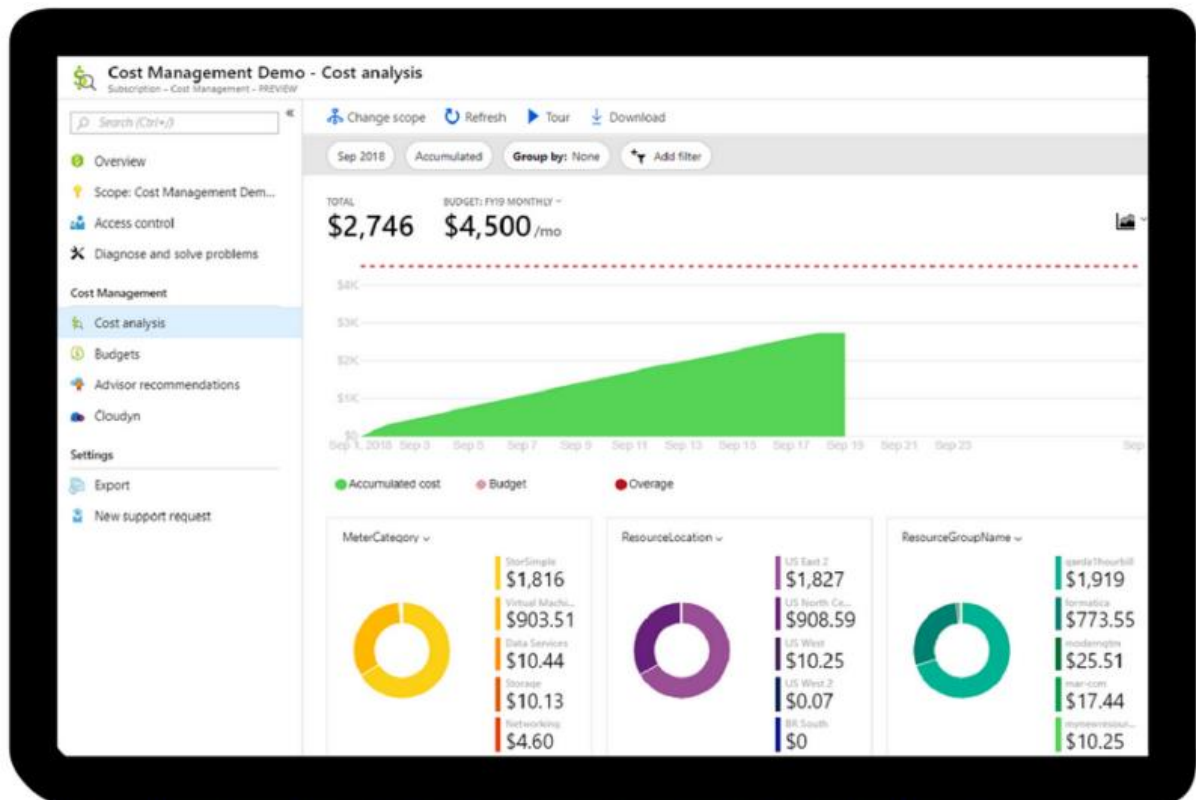
Select the correct option.

- ○

  See estimates of what your services might cost if you make a change

- ○

  See historical breakdowns of what services you are spending your money on

  (Correct)

- ◉

  A tool in Azure that lets you define how much you want to spend, then cuts off services when that allocation is met

  (Incorrect)

Explanation
Correct answer is option *See historical breakdowns of what services you are spending your money on.*

Cost Management is a set of tools for monitoring, allocating, and optimizing your Azure costs. You can use historical breakdowns to evaluate how and why you spend on Azure.
Reference: https://docs.microsoft.com/en-us/azure/cost-management-billing/cost-management-billing-overview

Reference: https://docs.microsoft.com/en-us/learn/modules/review-planning-managing-costs/10-define-azure-cost-management

Other options are not correct.

Question 5: **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.
```

As a best practice, all resources that are part of an application and share the same lifecycle should exist in the same [*Resource Group*]

- ◉

  Availability set

  (Incorrect)

- ○

  No change needed

  (Correct)

- ○

  Management Group

- ○

  Region

Explanation

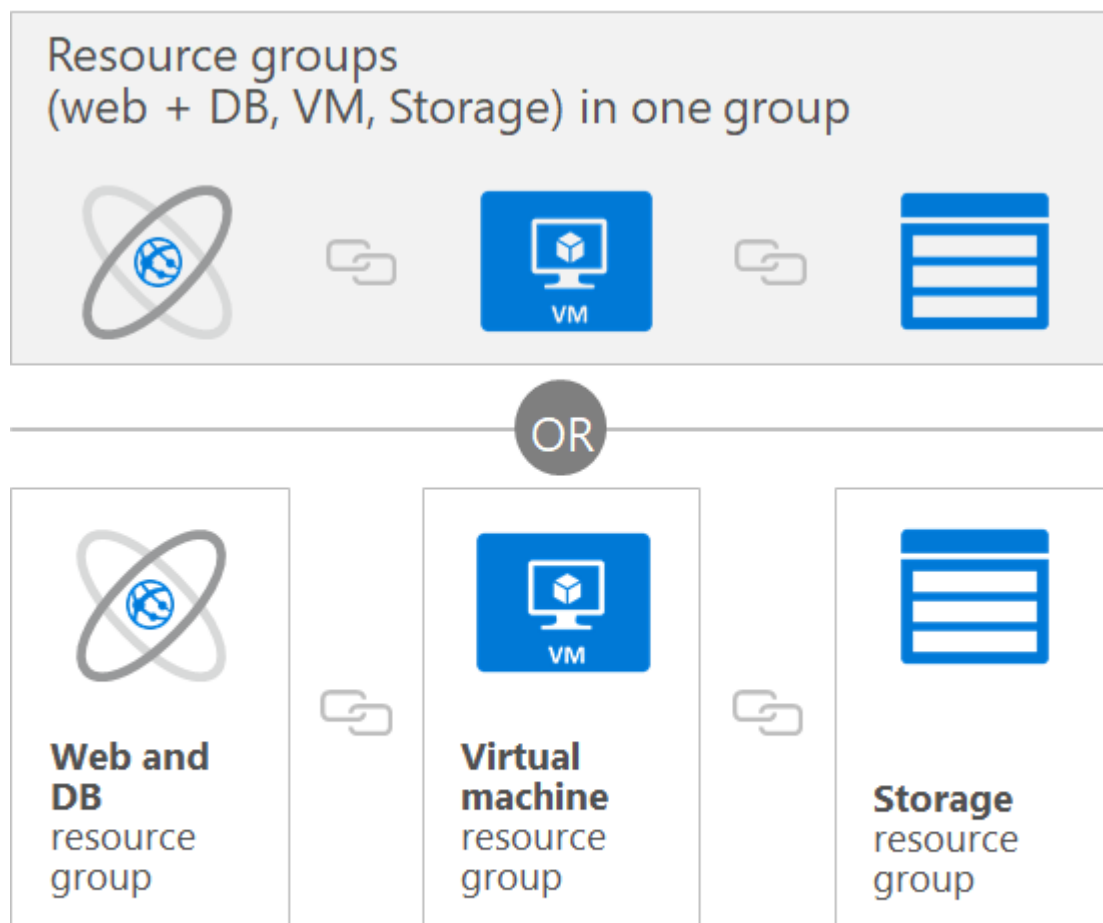***Keywords:*** *multiple resources, same life cycle => Resource Group*

Correct answer is option ***No change needed*** ie. ***Resource Group***
Resource Groups 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

Other options are not correct.

Option **Management Group** 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 **Region** is incorrect - *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.
Reference: https://docs.microsoft.com/en-us/azure/availability-zones/az-overview

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

Question 6: **Correct**

```
1.      Exam notes:
2.      - Drag the appropriate term from the row on the top to its description on the botto
        m.
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.
```

Disaster recovery	Scalability	Agility	Fault tolerance

[ ] is the ability to increase or decrease resources for any given workload

[ ] is the ability to remain up and running even in the event of a component (or service) no longer functioning

[ ] is the ability to recover from an event which has taken down a cloud service

[ ] is the ability to respond to change rapidly based on changes to market or environment, ensuring fast time to market

Disaster recovery - is the ability to remain up and running even in the event of a component (or service) no longer functioning

Scalability - is the ability to increase or decrease resources for any given workload

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 recover from an event which has taken down a cloud service

- ○

Disaster recovery - is the ability to recover from an event which has taken down a cloud service

Scalability - is the ability to remain up and running even in the event of a component (or service) no longer functioning

Agility - is the ability to increase or decrease resources for any given workload

Fault tolerance - is the ability to respond to change rapidly based on changes to market or environment, ensuring fast time to market

- ◉

Disaster recovery - is the ability to recover from an event which has taken down a cloud service

Scalability - is the ability to increase or decrease resources for any given workload

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)

- ○

Disaster recovery - is the ability to remain up and running even in the event of a component (or service) no longer functioning

Scalability - is the ability to respond to change rapidly based on changes to market or environment, ensuring fast time to market

Agility - is the ability to increase or decrease resources for any given workload

Fault tolerance - is the ability to recover from an event which has taken down a cloud service

Explanation

Correct answer is option

Disaster recovery - is the ability to recover from an event which has taken down a cloud service

Scalability - is the ability to increase or decrease resources for any given workload

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:

Disaster recovery is the ability to recover from an event that has taken down a cloud service. Disaster recovery of cloud services can happen very quickly, with automation and services being readily available to use.
Reference: https://azure.microsoft.com/en-us/solutions/backup-and-disaster-recovery/

Scalability is the ability to increase or decrease resources for any given workload. You can add additional resources to service a workload (known as scaling out) or add additional capabilities to manage an increase in demand to the existing resource (known as scaling up).

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.
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 7: **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 al
       lowed to use dropdown.
```

Azure SLA for two or more Virtual Machines in an Availability Sets is

99.95%
99.99%
99.9%
99.94%

- ◉

  99.95%

  (Correct)

- ○

  99.9%

- ○

  99.99%

- ○

  99.94%

Explanation
Keywords: *availability set, sla => 99.95%*

Correct answer is **99.95%**

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**.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets

Other options are not correct.

Question 8: **Incorrect**
You plan to extend your company's network to Azure. The network contains a VPN appliance that uses an IP address of 10.10.10.1

You need to create an Azure resource that defines the VPN appliance in Azure. Which Azure resource should you create?

Virtual networks	Azure Synapse Analytics (private link hubs)
Front Doors Standard/Premium (Preview)	CDN profiles
Network Watcher	Network security groups
Public IP addresses	Public IP Prefixes
Route tables	Route filters
DDoS protection plans	Service endpoint policies
Web Application Firewall policies (WAF)	Private Link
Bastions	On-premises Data Gateways
Application gateways	NAT gateways
IP Groups	Firewall Manager
Firewalls	Local network gateways
Virtual network gateways	Network security groups (classic)

To answer, select the appropriate resource.

- ◉

  Virtual network gateways

  (Incorrect)

- ○

  Local network gateways

  (Correct)

- ○

  Applications gateways

- ○

  Private Link

Explanation
Correct Answer is option *Local network gateways*

A Local Network Gateway is an object in Azure that represents your on-premise VPN device. You give the site a name by which Azure can refer to it, then specify the IP address of the on-premises VPN device to which you will create a connection. You also specify the IP address prefixes that will be routed through the VPN gateway to

the VPN device. The address prefixes you specify are the prefixes located on your on-premises network. If your on-premises network changes or you need to change the public IP address for the VPN device, you can easily update the values later.
Reference: https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-portal

Other options are not correct.

Option **Virtual network gateways** is incorrect - A *Virtual Network Gateway* is the VPN object at the Azure end of the VPN. A VPN gateway is used to send encrypted traffic between an Azure virtual network and an on-premises location over the public Internet.
Reference: https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-vpngateways

Option **Applications gateways** is incorrect - Azure Application Gateway is a web traffic load balancer that enables you to manage traffic to your web applications.

Reference: https://docs.microsoft.com/en-us/azure/application-gateway/overview
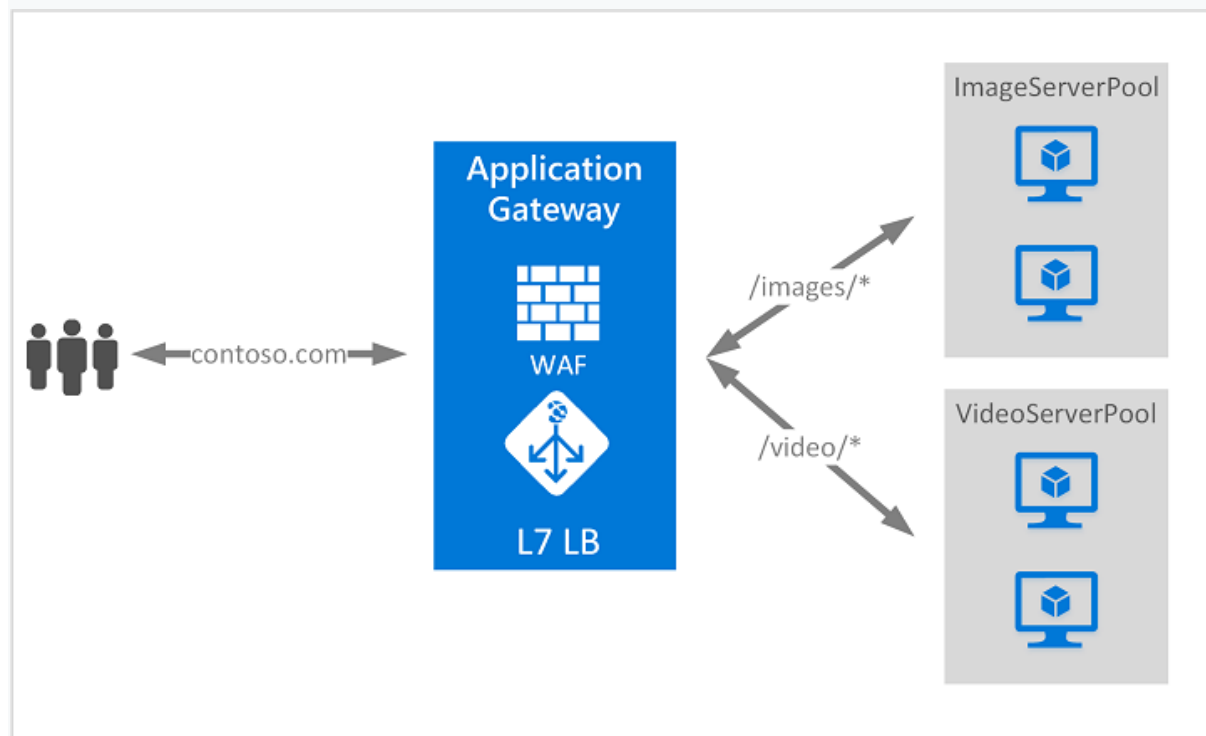
Option **Private Link** is incorrect - *Azure Private Link* enables you to access Azure PaaS Services (for example, Azure Storage and SQL Database) and Azure-hosted customer-owned/partner services over a private endpoint in your virtual network. It does not provide VPN connectivity with an on-prem network

Question 9: **Incorrect**

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

Your company is planning to deploy several million sensors, that will upload data to Azure. You need to identify Azure resources that must be created to support the planned solution.

Which two Azure resources should you identify?

- ☐

  Azure Queue storage

- ☑

  Azure Notification Hubs

  (Incorrect)

- ☑

  Azure Data Lake

  (Correct)

- ☐

  Azure File Storage

- ☐

  Azure IoT Hub

  (Correct)

Explanation
Keywords: *million sensors + collect data => IoT, million sensors + upload data on azure => Data Lake*

Correct answers are
Option ***Azure IoT Hub*** - IoT hub is a **IoT service** that 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/
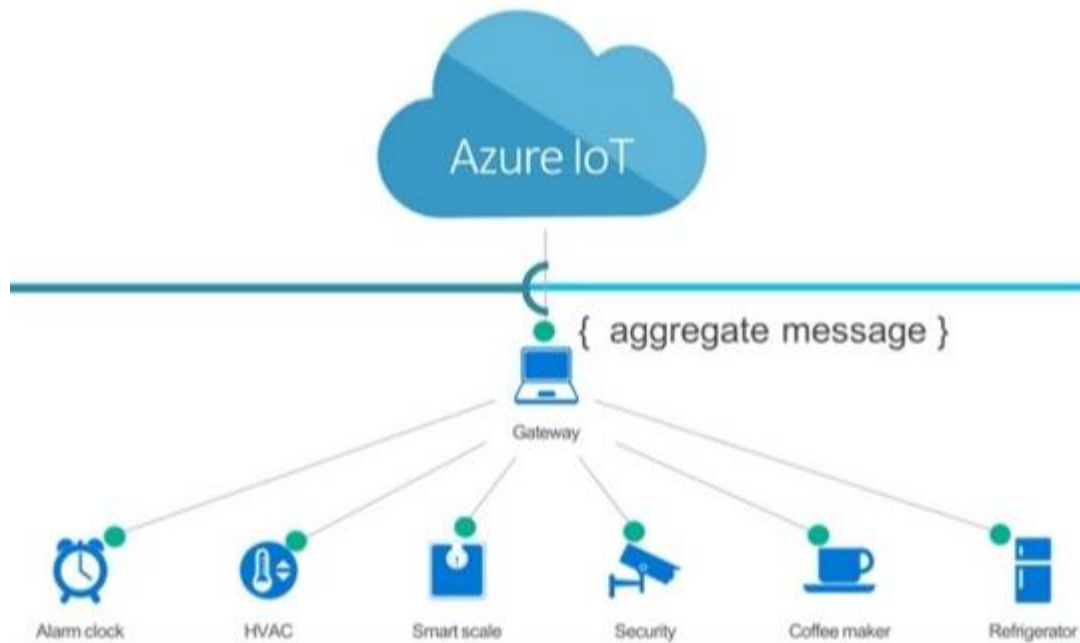
Option **Azure Data Lake** - Azure Data Lake includes all the capabilities required to make it easy for developers, data scientists, and analysts to store data of any size, shape, and speed. To save data from millions of devices, Data Lake is correct option.
Reference: https://azure.microsoft.com/en-us/solutions/data-lake/

Other options are not correct.

Option **Azure Queue storage** is incorrect - *Azure Queue* service is used to store and retrieve millions of messages, these messages are usually backlog of work to process asynchronously, and not to collect real-time data from devices. Azure Queue is the simplest way to implement decoupled solutions.
Reference: https://docs.microsoft.com/en-us/azure/storage/queues/storage-queues-introduction

Option **Azure Notification Hubs** is incorrect - Notification Hub provides an easy-to-use and scaled-out *push engine* that enables you to send notifications to any platform (iOS, Android, Windows, etc.) from any back-end (cloud or on-premises). It can not be used to collect real-time data from devices.
Reference: https://docs.microsoft.com/en-us/azure/notification-hubs/notification-hubs-push-notification-overview

Option **Azure File Storage** is incorrect - Azure Files enables you to set up highly available network file shares that can be accessed by using the standard Server Message Block (SMB) protocol. That means that multiple VMs can share the same files with both read and write access. You can also read the files using the REST interface or the storage client libraries.
Reference: https://azure.microsoft.com/en-in/services/storage/files/

Question 10: **Incorrect**

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

Statements	Yes	No
1. From Azure Service Health, an administrator can view the health of all the services in the Azure environment.	○	○
2. From Azure Service Health, an administrator can create a rule to be alerted if an Azure service fails.	○	○
3. From Azure Service Health, an administrator can prevent a service failure.	○	○

- ☑

  From Azure Service Health, an administrator can create a rule to be alerted if an Azure service fails.

  (Correct)

- ☑

  From Azure Service Health, an administrator can prevent a service failure.

  (Incorrect)

- ☑

  From Azure Service Health, an administrator can view the health of all the services in the Azure environment.

  (Correct)

Explanation

```
Good to know
```

```
Azure Service Health => Azure Status + Service Health + Resource health
```

Statement *From Azure Service Health, an administrator can view the health of all the services in the Azure environment* is correct - Azure Service Health consists of three components: Azure Status, Azure Service Health, and Azure Resource Health. Azure service health provides a personalized view of the health of the Azure services and regions you're using. This is the best place to look for service-impacting communications about outages, planned maintenance activities, and other health advisories because the authenticated Azure Service Health experience knows which services and resources you currently use.

To view the health of all other services available in Azure, you would use the Azure Status component of Azure Service Health. Azure status informs you of service outages in Azure on the Azure Status page. The page is a global view of the health of all Azure services across all Azure regions.

Statement *From Azure Service Health, an administrator can create a rule to be alerted if an Azure service fails* is correct - The best way to use Service Health is to set up Service Health alerts to notify you via your preferred communication channels when service issues, planned maintenance, or other changes may affect the Azure services and regions you use.

Statement *From Azure Service Health, an administrator can prevent a service failure* is incorrect - Azure resource health provides information about the health of your individual cloud resources such as a specific virtual machine instance. You can use Resource Health to view the health of a virtual machine. However, you cannot use Resource Health to prevent a service failure affecting the virtual machine.

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

Question 11: Correct
```
1.      Exam notes:
2.      - Drag the appropriate term from the row on the top to its description on the botto
        m.
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.
```

Azure Repos	Azure Boards	Azure Artifacts	Azure Test Plans

	an automated test tool that can be used in a CI/CD pipeline to ensure quality before a software release.
	a repository for hosting bundles, such as compiled source code, which can be fed into testing or deployment pipeline steps.
	agile project management suite that includes Kanban boards, reporting, and tracking ideas and work from high-level epics to work items and issues.
	a centralized source-code repository where software developers can publish their code for review and collaboration.

○

Azure Repos - agile project management suite that includes Kanban boards, reporting, and tracking ideas and work from high-level epics to work items and issues.
Azure Boards - a centralized source-code repository where software developers can publish their code for review and collaboration.
Azure Artifacts - an automated test tool that can be used in a CI/CD pipeline to ensure quality before a software release.
Azure Test Plans - a repository for hosting bundles, such as compiled source code, which can be fed into testing or deployment pipeline steps.

◉

Azure Repos - a centralized source-code repository where software developers can publish their code for review and collaboration.
Azure Boards - agile project management suite that includes Kanban boards, reporting, and tracking ideas and work from high-level epics to work items and issues.
Azure Artifacts - a repository for hosting bundles, such as compiled source code, which can be fed into testing or deployment pipeline steps.
Azure Test Plans - an automated test tool that can be used in a CI/CD pipeline to ensure quality before a software release.

(Correct)

○

Azure Repos - agile project management suite that includes Kanban boards, reporting, and tracking ideas and work from high-level epics to work items

and issues.
Azure Boards - **an automated test tool that can be used in a CI/CD pipeline to ensure quality before a software release.**
Azure Artifacts - **a centralized source-code repository where software developers can publish their code for review and collaboration.**
Azure Test Plans - **a repository for hosting bundles, such as compiled source code, which can be fed into testing or deployment pipeline steps.**

- ○

Azure Repos - **an automated test tool that can be used in a CI/CD pipeline to ensure quality before a software release.**
Azure Boards - **agile project management suite that includes Kanban boards, reporting, and tracking ideas and work from high-level epics to work items and issues.**
Azure Artifacts - **a centralized source-code repository where software developers can publish their code for review and collaboration.**
Azure Test Plans - **a repository for hosting bundles, such as compiled source code, which can be fed into testing or deployment pipeline steps.**

Explanation

Correct answer is option

Azure Repos - a centralized source-code repository where software developers can publish their code for review and collaboration.

Azure Boards - agile project management suite that includes Kanban boards, reporting, and tracking ideas and work from high-level epics to work items and issues.

Azure Artifacts - a repository for hosting bundles, such as compiled source code, which can be fed into testing or deployment pipeline steps.

Azure Test Plans - an automated test tool that can be used in a CI/CD pipeline to ensure quality before a software release.

Other options are not correct.

Question 12: **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.
```

An Azure Availability Zone can be used to protect from [*an Azure data center failure*]

- ○

a physical server failure

- ◉

No change needed

(Correct)

- ○

a storage failure

- ○

an Azure region failure

Explanation

Correct answer is option **No change needed** *ie*. **an Azure data center failure**

Availability Zones are physically separate locations (datacenters) with their own power, cooling, and networking, within an Azure region. Azure can help make your app highly available through Availability Zones with 99.99% Azure SLA. If **one zone/datacenter in a region goes down, other Availability Zones in the region continue to work**.
Reference: https://docs.microsoft.com/en-us/azure/availability-zones/az-overview

Other options are not correct.

Option **an Azure region failure** is incorrect - The entire region can fail in case of any disaster, which means, all Availability-Zones in the region failed. The process of recovery from a region failure is called Disaster Recovery.
Reference: https://azure.microsoft.com/en-us/solutions/backup-and-disaster-recovery/

Option **a physical server failure** is incorrect - Physical server failure can be handled using Availability sets. *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 **a storage failure** is incorrect - Storage failure is handled by continuously replicating storage to secondary storage.

Question 13: **Incorrect**
How are policies and initiatives are related in Azure?

Select the correct option.

- ○

  A policy assign an initiative to a resource

- ◉

  Policies are a set of multiple initiatives

  (Incorrect)

- ○

  Initiatives are a set of multiple policies

  (Correct)

- ○

  An initiative assigns a policy to a resource

Explanation
Keywords: a set of policies => Initiative

Correct answer is *Initiatives are a set of multiple policies*

Initiative is a collection of policy definitions that are tailored towards achieving a singular overarching goal. Initiative definitions simplify managing and assigning policy definitions. For example, you could create an initiative titled Enable Monitoring in Azure Security Center, with a goal to monitor all the available security recommendations in your Azure Security Center.
Reference: https://docs.microsoft.com/en-us/azure/governance/policy/overview

Other options are not correct.

Question 14: **Correct**
```
1.    Exam notes:
2.    - Drag the appropriate term from the row on the top to its description on the botto
      m.
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.
```

The Microsoft privacy statement	Trust Center	Azure Advisor	Service Health

	contains information about how Microsoft supports security, privacy, and compliance in cloud products and services
	explains what personal data Microsoft processes, how Microsoft processes it, and for what purposes
	help you prepare for planned maintenance and changes that could affect the availability of your resources
	a tool that provides guidance and recommendations to improve an Azure environment

○

The Microsoft privacy statement - explains what personal data Microsoft processes, how Microsoft processes it, and for what purposes
Trust Center - help you prepare for planned maintenance and changes that could affect the availability of your resources
Azure Advisor - contains information about how Microsoft supports security, privacy, and compliance in cloud products and services
Service Health - a tool that provides guidance and recommendations to improve an Azure environment

○

The Microsoft privacy statement - explains what personal data Microsoft processes, how Microsoft processes it, and for what purposes
Trust Center - help you prepare for planned maintenance and changes that could affect the availability of your resources
Azure Advisor - a tool that provides guidance and recommendations to improve an Azure environment
Service Health - contains information about how Microsoft supports security, privacy, and compliance in cloud products and services

◉

The Microsoft privacy statement - explains what personal data Microsoft processes, how Microsoft processes it, and for what purposes
Trust Center - contains information about how Microsoft supports security, privacy, and compliance in cloud products and services
Azure Advisor - a tool that provides guidance and recommendations to improve an Azure environment

Service Health **- help you prepare for planned maintenance and changes that could affect the availability of your resources**

(Correct)

- ○

The Microsoft privacy statement **- a tool that provides guidance and recommendations to improve an Azure environment**
Trust Center **- explains what personal data Microsoft processes, how Microsoft processes it, and for what purposes**
Azure Advisor **- contains information about how Microsoft supports security, privacy, and compliance in cloud products and services**
Service Health **- help you prepare for planned maintenance and changes that could affect the availability of your resources**

Explanation

Correct answer is option

The Microsoft privacy statement - explains what personal data Microsoft processes, how Microsoft processes it, and for what purposes
Trust Center - contains information about how Microsoft supports security, privacy, and compliance in cloud products and services
Azure Advisor - a tool that provides guidance and recommendations to improve an Azure environment
Service Health - help you prepare for planned maintenance and changes that could affect the availability of your resources

Detailed explanation:

The Microsoft privacy statement explains what personal data Microsoft processes, how Microsoft processes it, and for what purposes. References to Microsoft products in this statement include Microsoft services, websites, apps, software, servers, and devices.
Reference: https://privacy.microsoft.com/en-US/privacystatement

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. The Trust Center is an important part of the Microsoft Trusted Cloud Initiative and provides support and resources for the legal and compliance community.
Reference: https://www.microsoft.com/trustcenter

Azure Advisor Hub provides recommendations on *high availability, security, performance, operational excellence and cost*. Advisor analyzes your deployed services and looks for ways to improve your environment across those four areas.
Reference: https://docs.microsoft.com/en-us/azure/advisor/advisor-get-started

Other options are not correct.

Question 15: **Incorrect**

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

Statements	Yes	No
1. A Platform as a Service (PaaS) solution provides full control of an operating system that hosts applications.	○	○
2. A Platform as a Service (PaaS) solution provides additional memory to apps by changing pricing tiers.	○	○
3. A Platform as a Service (PaaS) solution can automatically scale the number of instances.	○	○

- ☐

    A Platform as a Service (PaaS) solution can automatically scale the number of instances.

    (Correct)

- ☐

    A Platform as a Service (PaaS) solution provides full control of an operating system that hosts applications.

- ☑

    A Platform as a Service (PaaS) solution provides additional memory to apps by changing pricing tiers.

    (Correct)

Explanation

Statement *A Platform as a Service (PaaS) solution provides full control of an operating system that hosts applications* is incorrect - In the PaaS modal, the Cloud provider (Azure) takes care of underlying infrastructure and its hosting.

Statement *A Platform as a Service (PaaS) solution provides additional memory to apps by changing pricing tiers* is correct - It's correct, you can enhance the configuration of your PaaS services by paying more.

Statement *A Platform as a Service (PaaS) solution can automatically scale the number of instances* is correct - It's Correct, Azure takes care of scaling (be it horizontal or vertical) for its PaaS services.

Question 16: **Correct**
Which of the following requires the most management of the cloud services?

Select the correct option.

- ○

   Platform as a Service (PaaS)

- ○

   Function as a Service (FaaS)

- ◉

   Infrastructure as a Service (IaaS)

   (Correct)

- ○

   Software as a Service (SaaS)

Explanation
Keywords: *cloud resources, most effort of management => IaaS*

Correct answer is **Infrastructure as a Service (IaaS)**
Infrastructure as a service (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. IaaS requires the most user management of

cloud services.
Reference: https://azure.microsoft.com/en-us/overview/what-is-iaas/
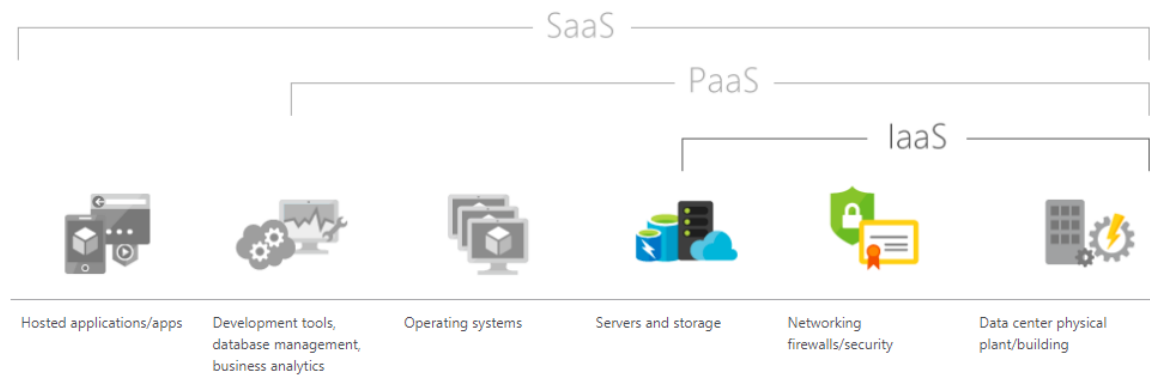
Other options are not correct.
Option **Platform as a Service (PaaS)** is incorrect - PaaS allows you to purchase the resources you need from a cloud service provider on a pay-as-you-go basis and access them over a secure Internet connection. You manage the applications and services you develop, and 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)** 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 **Function as a Service (FaaS)** is incorrect - *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. 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/

Question 17: **Incorrect**
Your Azure environment contains multiple Azure virtual machines. You need to ensure that a virtual machine named myVM is accessible from the Internet over HTTP.

Select the correct option.

- ○

  You modify an Azure firewall

  (Correct)

- ○

  You modify a DDoS protection plan

- ◉

  You modify an Azure Traffic Manager profile

  (Incorrect)

Explanation
Correct answer is ***You modify an Azure firewall***

Inbound and outbound internet connectivity can be configured using *Azure Firewall*. A firewall is a fully managed, cloud-based, network security service that protects your Azure Virtual Network resources.
Reference: https://docs.microsoft.com/en-us/azure/firewall/overview

Other options are not correct.

Option ***You modify a DDoS protection plan*** is incorrect - *DDoS Protection* protects resources in a virtual network including public IP addresses associated with virtual machines, load balancers, and application gateways. It can not be used for access management.
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
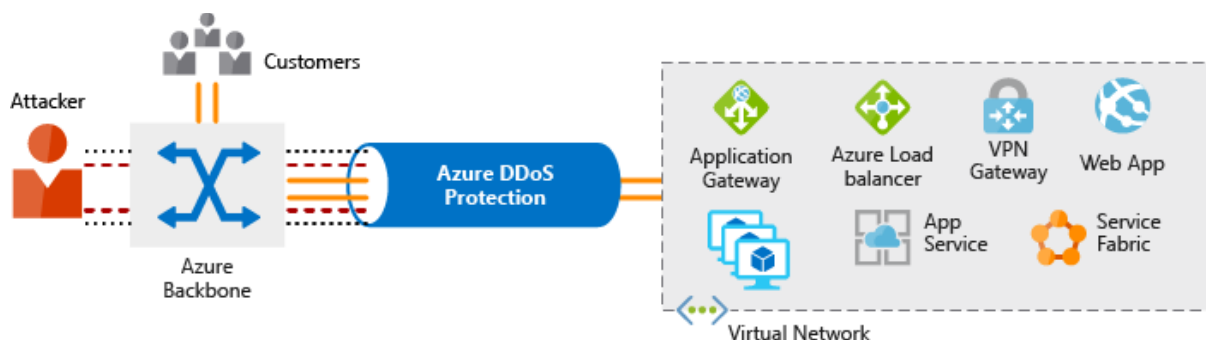
Option **You modify an Azure Traffic Manager profile** is incorrect - *Azure Traffic Manager* is a DNS-based traffic load balancer that enables you to distribute traffic optimally to services across global Azure regions while providing high availability and responsiveness. It can not be used to provide internet access to Virtual machines.
Reference: https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview

Question 18: Correct

```
1.      Exam notes:
2.      - Drag the appropriate term from the row on the top to its description on the botto
        m.
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.
```

Azure IoT Hub	Azure IoT Central	Azure Sphere

a dashboard that allows you to connect, monitor, and manage your IoT devices.

creates an end-to-end, highly secure IoT solution for sending messages from the device to the message hub.

a managed service that's hosted in the cloud, acts as a message center for bi-directional communication between your IoT application and the devices it manages.

○

Azure IoT Hub - a managed service that's hosted in the cloud, acts as a message center for bi-directional communication between your IoT application and the devices it manages.
Azure IoT Central - creates an end-to-end, highly secure IoT solution for sending messages from the device to the message hub.
Azure Sphere - a dashboard that allows you to connect, monitor, and manage your IoT devices.

○

Azure IoT Hub - creates an end-to-end, highly secure IoT solution for sending messages from the device to the message hub.
Azure IoT Central - a dashboard that allows you to connect, monitor, and manage your IoT devices.
Azure Sphere - a managed service that's hosted in the cloud, acts as a

message center for bi-directional communication between your IoT application and the devices it manages.

- ○

  Azure IoT Hub **- creates an end-to-end, highly secure IoT solution for sending messages from the device to the message hub.**
  Azure IoT Central **- a managed service that's hosted in the cloud, acts as a message center for bi-directional communication between your IoT application and the devices it manages.**
  Azure Sphere **- a dashboard that allows you to connect, monitor, and manage your IoT devices.**

- ◉

  Azure IoT Hub **- a managed service that's hosted in the cloud, acts as a message center for bi-directional communication between your IoT application and the devices it manages.**
  Azure IoT Central **- a dashboard that allows you to connect, monitor, and manage your IoT devices.**
  Azure Sphere **- creates an end-to-end, highly secure IoT solution for sending messages from the device to the message hub.**

  (Correct)

Explanation
Correct answer is option
Azure IoT Hub - a managed service that's hosted in the cloud, acts as a message center for bi-directional communication between your IoT application and the devices it manages.
Azure IoT Central - a dashboard that allows you to connect, monitor, and manage your IoT devices.
Azure Sphere - creates an end-to-end, highly secure IoT solution for sending messages from the device to the message hub.

Other options are not correct.

Question 19: **Correct**
Which of the following terms refers to spending money upfront and then deducting that expense over time?

Select the correct option.

- ◉

Capital Expenditures (CapEx)

(Correct)

- ○

  Consumption-based model

- ○

  Operational Expenditure (OpEx)

- ○

  Economies of scale

Explanation
Keywords: *upfront expense => CapEx*

Correct Answer is **Capital Expenditures (CapEx)**

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.

Other options are not correct.

Option **Operational Expenditure (OpEx)** is incorrect - 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**.
Reference: https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/business-strategy/financial-models

Option **Economies of scale** is incorrect - *Economies of scale* is the ability to reduce costs and gain efficiency when operating at a larger scale in comparison to operating at a smaller scale. Cloud providers such as Microsoft, Google, and Amazon are large businesses and are able to leverage the benefits of economies of scale, and then pass those benefits on to their customers.
Reference: https://www.microsoft.com/en-au/microsoft-365/business-insights-ideas/resources/how-economies-of-scale-affect-small-businesses

Option **Consumption-based model** is incorrect - The consumption-based *model* allows end-users only to pay for the resources that they use. Whatever they use is what they pay for.

Question 20: **Correct**
Which service is a platform that powers Application Insights, monitoring for VMs, containers, and Kubernetes?

Select the correct option.

- ◯

  Azure Service Health

- ◉

  Azure Monitor

  (Correct)

- ◯

  Azure Advisor

Explanation
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 several Azure cloud services including Application Insights, monitoring for VMs, containers, and Kubernetes.

Other options are not correct.

Option **Azure Advisor** is incorrect - *Azure Advisor* provides recommendations on **high availability, security, performance, operational excellence and cost**. Azure Advisor is not the platform used by Application Insights, nor does it provide monitoring for VMs, containers, and Kubernetes.

Option **Azure Service Health** is incorrect - Azure Service Health is not the platform used by Application Insights, nor does it provide monitoring for VMs, containers, and Kubernetes.

Question 21: **Correct**
You are planning to deploy several Azure virtual machines and need to ensure that the services running on the virtual machines are available if a single data center fails.

What solution you will follow?

- ◉

  Deploy virtual machines to two or more availability zones

  (Correct)

- ○

  Deploy virtual machines to two or more availability sets

- ○

  Deploy virtual machines to two or more scale sets

- ○

  Deploy virtual machines to two or more regions

Explanation
Keywords: *datacenter level fault tolerance => Availability Zones*

Correct answer is option ***Deploy virtual machines to two or more availability zones.***

Availability Zones are physically separate locations with their own power, cooling, and networking, within an Azure region. Azure can help make your app highly available through Availability Zones with 99.99% Azure SLA. *If one zone or data center in a region goes down, other Availability Zones in the region continue to work.*
Reference: https://docs.microsoft.com/en-us/azure/availability-zones/az-overview

Other options are not correct.

Option ***Deploy virtual machines to two or more regions*** is incorrect - *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. *Resources can be hosted in multiple regions for either Disaster Recovery planning or for Global reach.*
Reference: https://docs.microsoft.com/en-us/learn/modules/discuss-core-azure-architectural-components/2-examine-regions

Option ***Deploy virtual machines to two or more scale sets*** is incorrect - Azure virtual machine *scale sets* let you create and manage a group of load-balanced VMs. The number of VM instances can automatically increase or decrease in response to demand or a defined schedule. Scale sets should be used to deploy VMs in multiple Availability Zone to implement a fault-tolerant solution.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/overview

Option ***Deploy virtual machines to two or more 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. Availability sets manage resources in the same datacenter, so can not provide the highest level of availability in case of data center failure.
Reference:https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets

Question 22: **Correct**
```
1.     Exam note:
2.     - Each correct selection is worth one point in the main exam.
```

You are planning to store 20 TB of data in Azure. The data will be accessed infrequently and visualized by using Microsoft Power BI. You need to recommend a storage solution for the data.

Which two solutions should you recommend?

- ☑

  Azure Data Lake

  (Correct)

- ☐

  Azure Database for PostgreSQL

- ☐

  Azure SQL Database

- ☑

  Azure SQL Data Warehouse
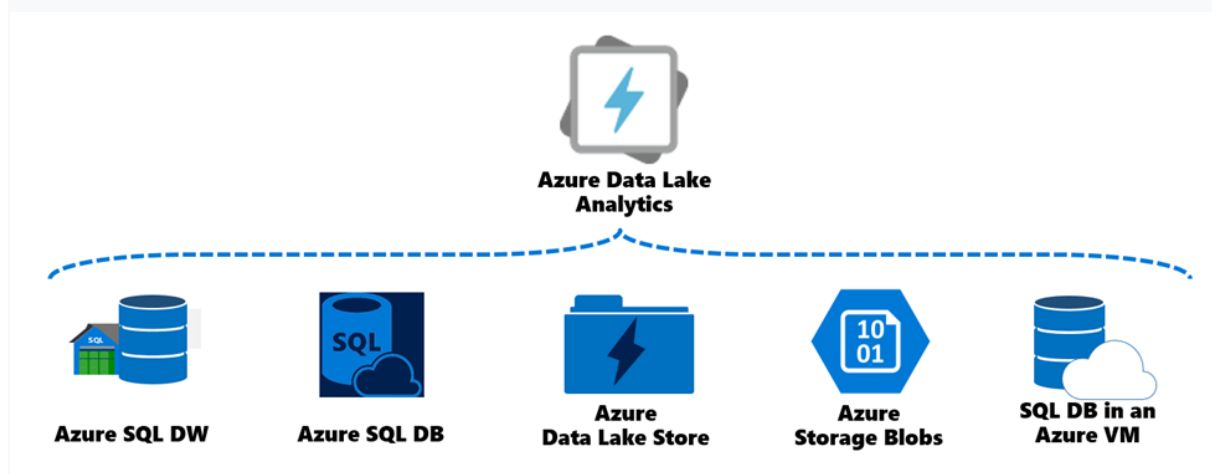
(Correct)

- ☐

Azure Cosmos DB

Explanation

Correct answers are

Option **Azure Data Lake** - *Azure Data Lake* is an on-demand analytics job service that simplifies big data. Azure Data Lake is used to handle the use cases where infrequent access to data (any kind of data) and Power BI integration is a must.
Reference: https://azure.microsoft.com/en-au/services/data-lake-analytics/

Option **Azure SQL Data Warehouse** - *Azure SQL Data Warehouse* can be used to handle the use cases where infrequent access to data (any kind of data) and Power BI integration is a must.
Reference: https://docs.microsoft.com/en-us/power-query/connectors/azuresqldatawarehouse

Other options are not correct.

Option **Azure Database for PostgreSQL** is incorrect - It is one of the data sources that you can use with Power BI but it is used in the use cases where **frequent access** of data is needed. Hence this is not the correct choice.
Reference: https://docs.microsoft.com/bs-latn-ba/azure/postgresql/overview

Option **Azure SQL Database** is incorrect - *Azure SQL 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

Option *Azure Cosmos DB* is incorrect - *Azure Cosmos DB* is a schema-less, globally distributed 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

Question 23: **Incorrect**
Which of these options helps to easily disable an account when an employee leaves your company?

Select the correct option.

- ○

  Monitor sign-on attempts

- ○

  Role-based access control (RBAC)

- ◉

  Enforce Multi-Factor Authentication (MFA)

  (Incorrect)

- ○

  Use single sign-on (SSO)

  (Correct)

Explanation
Correct answer is **Use single sign-on (SSO)**

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. Once the user leaves your organization, his account will be deactivated by the organization, so the user won't be able to access Azure resources. SSO centralizes user identity, so you can disable an inactive account in a single step.

Other options are not correct.

Option **Enforce 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.

Reference: https://docs.microsoft.com/en-us/azure/active-directory/authentication/overview-authentication#azure-ad-multi-factor-authentication

Option **Role-based access control (RBAC)** is incorrect - *Role-based access control (RBAC)* provides fine-grained access management for Azure resources, enabling you to grant users only the rights they need to perform their jobs. RBAC is using for access management, and not for user management.

Reference: https://docs.microsoft.com/en-us/azure/role-based-access-control/overview

Option **Monitor sign-on attempts** is incorrect - This is a manual step, which is not needed by using SSO.

Question 24: **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.
```

Your company implements [*cognitive services*] to automatically add labels to Microsoft Word documents that contain credit card information.

- ○

  Azure policies

- ○

  No change needed

- ○

  Azure Blueprints

- ⦿

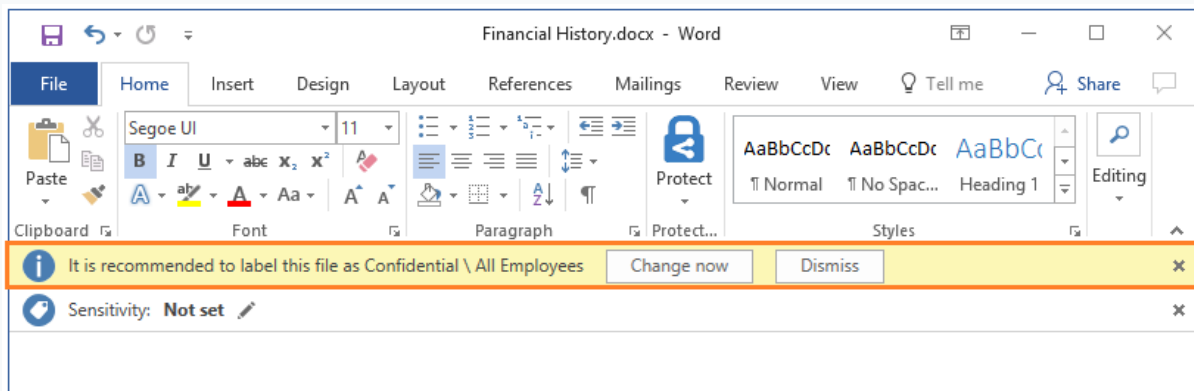 **Azure Information Protection (AIP)**

  (Correct)

Explanation
Keywords: documents processing, adding labels => use AIP

Correct answer is **Azure Information Protection (AIP)**

Azure Information Protection (AIP) is a cloud-based solution that helps organizations classify and protect their documents and emails by applying labels. Labels can be applied automatically (by administrators who define rules and conditions), manually (by users).
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

Other options are not correct.

Option **Azure policies** 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.
Reference: https://docs.microsoft.com/en-us/azure/governance/policy/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. Azure Blueprint enables development teams to rapidly build and deploy new environments with the knowledge that they're building within organizational compliance with a set of built-in components that speed up development and delivery.
Reference: https://docs.microsoft.com/en-us/azure/governance/blueprints/overview

Option **No change needed i.e. Cognitive services** is incorrect - *Cognitive services* are a collection of domain-specific pre-trained AI models that can be customized with your

data.
Reference: https://docs.microsoft.com/en-us/azure/cognitive-services/what-are-cognitive-services

Question 25: **Incorrect**
A company wants to start using Azure. They want to have a declarative way to orchestrate the deployment of various resources types such as role assignments and policy assignments. They decide to use Azure Blueprints.

Would this fulfill the requirement?

- ⦿

  No

  (Incorrect)

- ○

  Yes

  (Correct)

Explanation
Correct answer is *Yes*

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. Azure Blueprint enables development teams to rapidly build and deploy new environments.

Azure Blueprint is a declarative way to orchestrate the deployment of various resource templates and other artifacts, such as:
  o Role assignments
  o Policy assignments
  o Azure Resource Manager templates
  o Resource groups

Reference: https://docs.microsoft.com/en-us/azure/governance/blueprints/overview

Question 26: **Incorrect**
Your company is planning to move several servers to Azure. The company's compliance policy states that a server named *specialServer* must be on a separate network segment. You are evaluating Azure services, that can be used to meet the compliance policy requirements.

Which Azure solution should you recommend?

- ○

  a VPN gateway for specialServer and a virtual network gateway for each other server

- ◉

  a resource group for specialServer and another resource group for all the other servers

  (Incorrect)

- ○

  one resource group for all the servers and a resource lock for specialServer

- ○

  a virtual network for specialServer and another virtual network for all the other servers

  (Correct)

Explanation
Keywords: *multiple servers, separate network => use multiple Virtual networks*

Correct answer is **a virtual network for specialServer and another virtual network for all the other servers**

Using two Virtual Networks will make sure that servers in one VNet will not be able to connect to *specialServer* in another VNet. *Azure Virtual Network (VNet)* is the fundamental building block for your private network in Azure. VNet enables many types of Azure resources, such as Azure Virtual Machines (VM), to securely communicate with each other, the internet, and on-premises networks. **Reference:** https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-overview

Other options are not correct.

Option **a resource group for specialServer and another resource group for all the other servers** is incorrect - *Resource Groups* is a unit of management for resources in Azure, allows you to logically group Azure Resources together. Virtual machines in different Resources groups will still be able to communicate with each other if resources are created in the same VNet.

Option **a VPN gateway for specialServer and a virtual network gateway for each other server** is incorrect - *Azure Virtual Private Network (VPN) gateway* is used to send encrypted traffic between an Azure Virtual Network and an on-premises location over the public internet. *It does not help in restricting communication between two virtual machines.*

Option **one resource group for all the servers and a resource lock for specialServer** is incorrect - *Azure Lock* allows to lock Azure Resources like subscription, resource group, or other resources (eg. Virtual machines) to prevent other users in your organization from *accidentally deleting or modifying critical resources*. *It does not help in restricting communication between two virtual machines.* **Reference**: https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/lock-resources

Question 27: **Correct**

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

Your company has decided to migrate some of its services to Microsoft Azure. The company wants to make sure that services deployed to Azure virtual machines are available if a single data center fails.

Select two correct options.

- ☐

  You deploy the virtual machines to two or more resource groups.

- ☐

  You deploy the virtual machines to a scale set

- ☑

  You deploy the virtual machines to two or more availability zones.

  (Correct)

- ☐

  You deploy the virtual machines to two or more scale sets.

- ☑

  You deploy the virtual machines to two or more regions.

  (Correct)

Explanation
Correct answers are

Option ***You deploy the virtual machines to two or more availability zones*** - Availability zones expand the level of control you have to maintain the availability of the applications and data on your VMs. An Availability Zone is a physically separate zone, within an Azure region.
Reference: https://docs.microsoft.com/en-us/azure/availability-zones/az-overview

Option ***You deploy the virtual machines to two or more regions*** - By deploying the virtual machines to two or more regions, you are deploying the virtual machines to multiple data centers. This will ensure that the services running on the virtual machines are available if a single data center fails.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machines/regions

Other options are not correct.

Option *You deploy the virtual machines to a scale set* is incorrect
Option *You deploy the virtual machines to two or more scale sets* is incorrect
In both options, it does not specify that the scale set will be configured across multiple data centers so this solution does not meet the goal. Azure virtual machine scale sets let you create and manage a group of load-balanced VMs.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/overview

Option *You deploy the virtual machines to two or more resource groups* is incorrect as a resource group is a logical container for Azure resources. When you create a resource group, you specify which location to create the resource group in. However, when you create a virtual machine and place it in the resource group, the virtual machine can still be in a different location (different data centers).
Therefore, creating multiple resource groups, even if they are in separate data centers does not ensure that the services running on the virtual machines are available if a single data center fails.
Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview#resource-groups

Question 28: **Incorrect**
You are planning to map a network drive from several computers (that run Windows 10) to Azure Storage. You need to create a storage solution in Azure for the planned mapped drive.

What should you create?

- ○

  Azure SQL database

- ○

  Blobs service in a storage account

- ◉

  Virtual Machine Data disk

  (Incorrect)

- ○

  Files service in a storage account

(Correct)

Explanation
Keywords: *multiple windows computer, shared network drive => Azure File storage*

Correct answer is *Files service in a storage account*

Azure Files enables you to set up highly available network file shares that can be accessed by using the standard Server Message Block (SMB) protocol. That means that multiple VMs can share the same files with both read and write access.
Reference: https://azure.microsoft.com/en-in/services/storage/files/

Other options are not correct.

Option *Blobs service in a storage account* is incorrect - *Azure Blob (Containers) storage* is Microsoft's object storage solution for the cloud, optimized for storing massive amounts of unstructured data, such as text or binary data. It's not ideal storage for Virtual Machines.
Reference: https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blobs-introduction

Option *Virtual Machine Data disk* is incorrect - VM data disk can be linked to one VM at a time.

Option *Azure SQL database* is incorrect - Azure SQL is a Relational database and can not be used as a File share for Virtual machines.

Question 29: **Incorrect**
```
1.      Exam notes:
2.      - Drag the appropriate term from the row on the top to its description on the botto
        m.
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.
```

Azure Pricing Calculator	Azure Advisor	Azure TCO Calculator	Azure Cost Management

	It is a service that helps to follow best practices to optimize Azure resources
	It is used to estimate the cost savings you can achieve by migrating to Azure
	It is used to analyze customer's cloud consumption and services costs
	It outputs the costs per service and total cost for the full estimate

- ○

  Azure Pricing Calculator - **It outputs the costs per service and total cost for the full estimate**
  Azure Advisor - **It is a service that helps to follow best practices to optimize Azure resources**
  Azure TCO Calculator - **It is used to estimate the cost savings you can achieve by migrating to Azure**
  Azure Cost Management - **It is used to analyze customer's cloud consumption and services costs**

  (Correct)

- ◉

  Azure Pricing Calculator - **It is used to estimate the cost savings you can achieve by migrating to Azure**
  Azure Advisor - **It is used to analyze customer's cloud consumption and services costs**
  Azure TCO Calculator - **It outputs the costs per service and total cost for the full estimate**
  Azure Cost Management - **It is a service that helps to follow best practices to optimize Azure resources**

  (Incorrect)

- ○

  Azure Pricing Calculator - **It outputs the costs per service and total cost for the full estimate**

Azure Advisor - **It is used to analyze customer's cloud consumption and services costs**
Azure TCO Calculator - **It is used to estimate the cost savings you can achieve by migrating to Azure**
Azure Cost Management - **It is a service that helps to follow best practices to optimize Azure resources**

- ○

Azure Pricing Calculator - **It is a service that helps to follow best practices to optimize Azure resources**
Azure Advisor - **It outputs the costs per service and total cost for the full estimate**
Azure TCO Calculator - **It is used to estimate the cost savings you can achieve by migrating to Azure**
Azure Cost Management - **It is used to analyze customer's cloud consumption and services costs**

Explanation
Correct answer is option
Azure Pricing Calculator - It outputs the costs per service and total cost for the full estimate
Azure Advisor - It is a service that helps to follow best practices to optimize Azure resources
Azure TCO Calculator - It is used to estimate the cost savings you can achieve by migrating to Azure
Azure Cost Management - It is used to analyze customer's cloud consumption and services costs
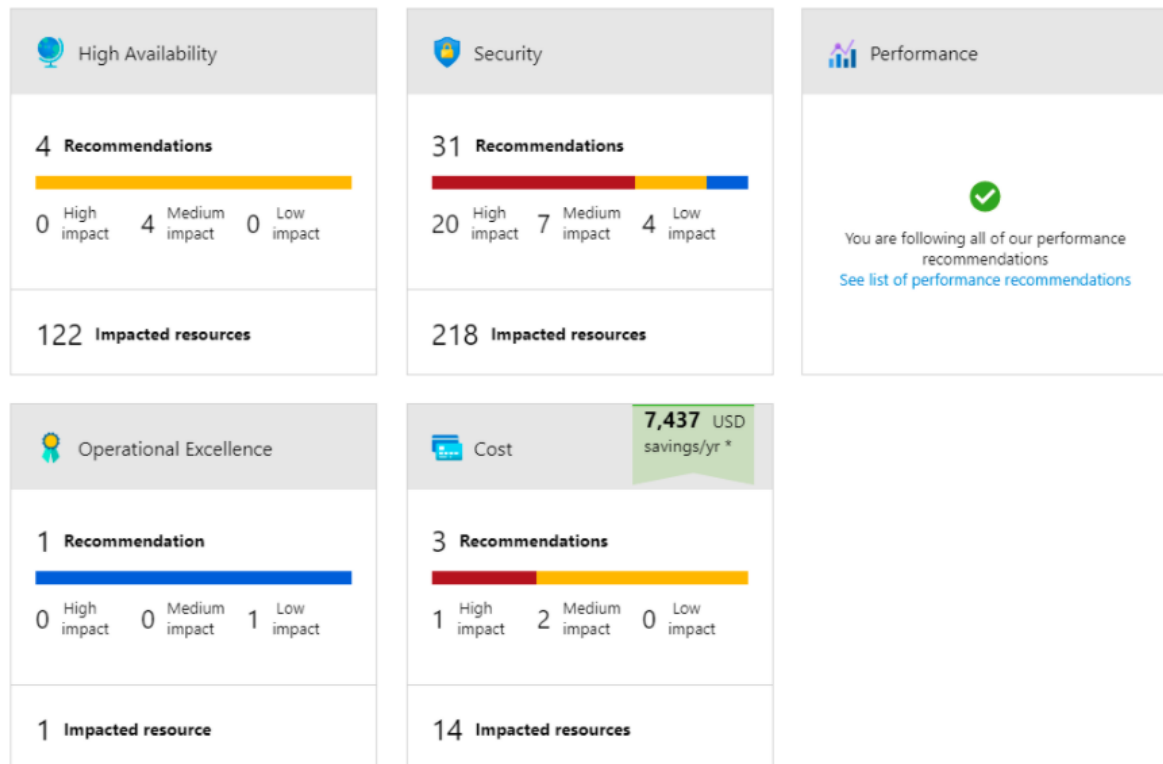

Detailed explanation:

The Pricing Calculator is a tool that helps you estimate the cost of Azure products. It displays Azure products in categories, and 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/

Azure Advisor Hub is a free service built into Azure that provides recommendations on *high availability, security, performance, operational excellence and cost*. Advisor analyzes your deployed services and looks for ways to improve your environment across those four areas.

High Availability

4 Recommendations

| 0 High impact | 4 Medium impact | 0 Low impact |

122 Impacted resources

Security

31 Recommendations

| 20 High impact | 7 Medium impact | 4 Low impact |

218 Impacted resources

Performance

✓

You are following all of our performance recommendations

See list of performance recommendations

Operational Excellence

1 Recommendation

| 0 High impact | 0 Medium impact | 1 Low impact |

1 Impacted resource

Cost

7,437 USD savings/yr *

3 Recommendations

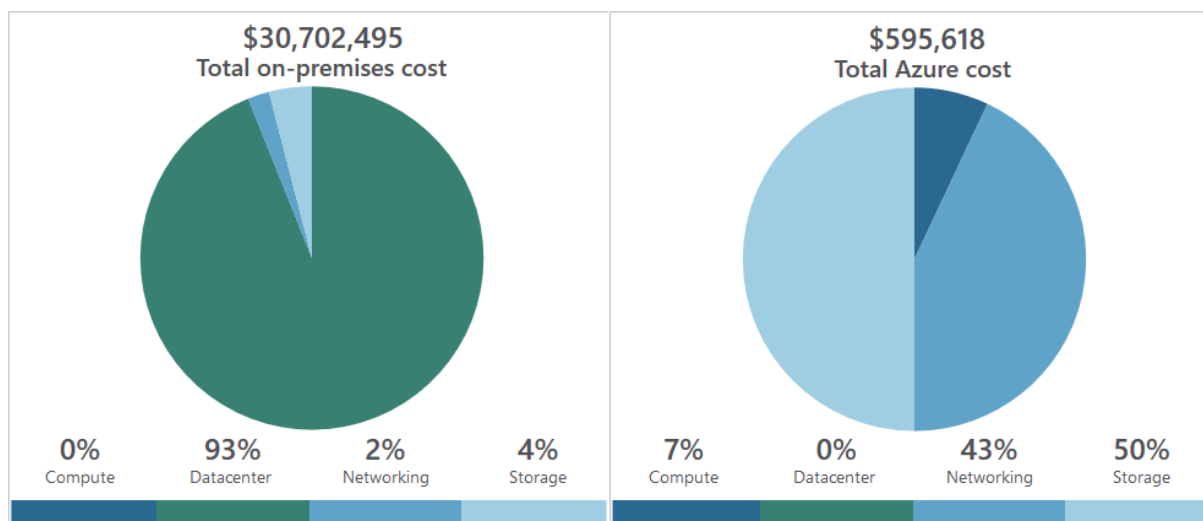| 1 High impact | 2 Medium impact | 0 Low impact |

14 Impacted resources

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 of using Azure products and services to host your infrastructure in the cloud.

$30,702,495
Total on-premises cost

| 0% Compute | 93% Datacenter | 2% Networking | 4% Storage |

$595,618
Total Azure cost

| 7% Compute | 0% Datacenter | 43% Networking | 50% Storage |

Cost Management provides a set of tools for monitoring, allocating, and optimizing your Azure costs. The main features of the Azure Cost Management toolset include Reporting, Data enrichment, Budgets, Alerting, Recommendations, and Price.
Reference: https://docs.microsoft.com/en-us/azure/cost-management-billing/cost-management-billing-overview

Other options are not correct.

Question 30: **Correct**

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

A support engineer plans to perform several Azure management tasks by using the Azure PowerShell. You need to tell the support engineer which tools to use to run the PowerShell.

Which three tools should you instruct the support engineer to use?

- ☑
  Windows PowerShell

  (Correct)

- ☐
  Azure Resource Explorer

- ☑
  macOS PowerShell Core

  (Correct)

- ☐
  macOS PowerShell

- ☑
 **Use PowerShell in Azure Cloud Shell**

  (Correct)

Explanation
Correct answers are

Option *Use PowerShell in Azure Cloud Shell* - *Azure Cloud Shell* is a browser-based scripting environment that 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**.
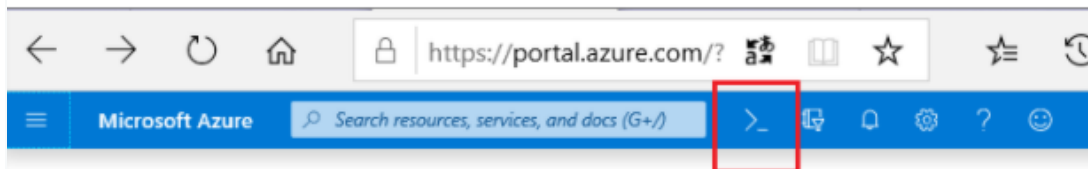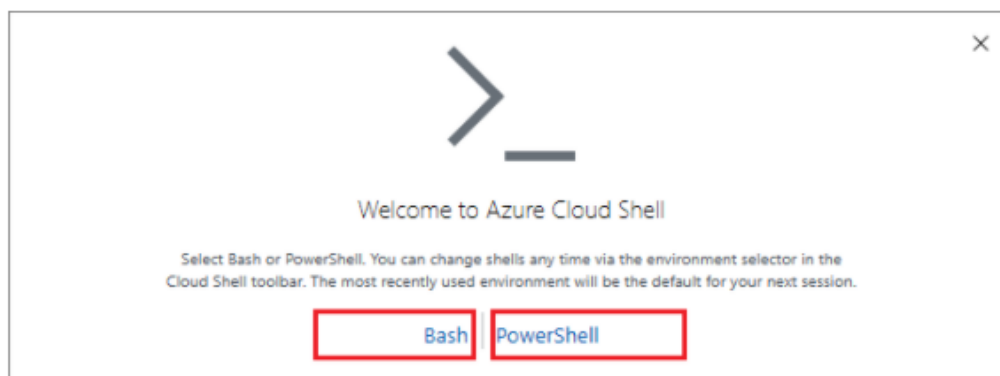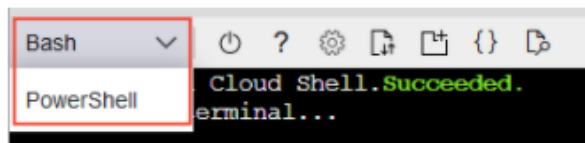

Reference: https://docs.microsoft.com/en-us/azure/cloud-shell/overview

Option *Windows PowerShell* - *Azure PowerShell* is a module that you add to Windows PowerShell that enables you to connect to your Azure subscription and manage resources. PowerShell provides services such as the shell window and command parsing. Azure PowerShell then adds the Azure-specific commands.
Reference: https://docs.microsoft.com/en-us/powershell/azure

Option *macOS PowerShell Core* - *PowerShell Core is a cross-platform version of PowerShell that runs on Windows, Linux or macOS.*

Question 31: **Correct**
Which of the following describes a Public Cloud?

Select the correct option.

- ◉

    Provides resources and services to multiple organizations and users, who connect through a secure network connection

    (Correct)

- ○

    Lets organizations run applications in the cloud or on-premises

- ○

    Is owned and operated by the organization that uses the resources from that cloud

- ○

    Can be used to host public platform only and not for government platform

Explanation
Correct answer is ***Provides resources and services to multiple organizations and users, who connect through a secure network connection.***

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. They may be free or sold on-demand, allowing customers to pay only per

usage for the CPU cycles, storage, or bandwidth they consume. *The public cloud provides resources and services to multiple organizations and users, who connect through a secure network connection.*

Reference: https://azure.microsoft.com/en-us/overview/what-is-a-public-cloud/

Other options are not correct.

Option *Is owned and operated by the organization that uses the resources from that cloud* is incorrect - The public cloud is owned by cloud providers (eg. Azure) and used by organizations.

Option *Lets organizations run applications in the cloud or on-premises* is incorrect - Flexibility to run the application on cloud or on-promises is provided by Hybrid cloud model.

Option *Can be used to host public platform only and not for government platform* is incorrect - Public cloud, like Azure, can be used by government organizations also. Azure additionally provide some government-specific cloud offering like Azure US Government cloud or Azure Germany.
Reference: https://docs.microsoft.com/en-us/azure/germany/germany-welcome

Question 32: **Correct**
Which term would be viewed as the benefits of using cloud services?

Select the correct option.

- ○

  High Latency

- ○

  Local reach only

- ●

  Elasticity

  (Correct)

- ○

  Unpredictable costs

Explanation

Correct Answer is *Elasticity*

Elasticity is the ability to automatically or dynamically increase or decrease resources as needed. Azure enabled you to create new resources when you need them and decommission them at any time.
Reference: https://azure.microsoft.com/en-us/overview/what-is-elastic-computing/

Other options are not correct.

Option *Unpredictable costs* is incorrect - Azure provides several tools, such as *Price Calculator*, *Total Cost of Ownership (TCO) calculator*, and *cost management tool* to check the cost.

Option *High Latency* is incorrect - You achieve low latency by setting up Azure resources in a Region close to your audience. Additionally, Azure CDN can be used for caching, global-reach, and low latency.

Option *Local reach only* is incorrect - With Azure cloud, you can design architecture to reach global audiences with low latency, by using, multi-region deployments, global resources, and CDN.

Question 33: **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 al
      lowed to use dropdown.
```

Azure Advisor does not provide recommendation for   [⌄]

> Availability
> Scalability
> Cost
> Performance

- ○

  Scalability

  (Correct)

- ◯

Performance

- ◉

Cost
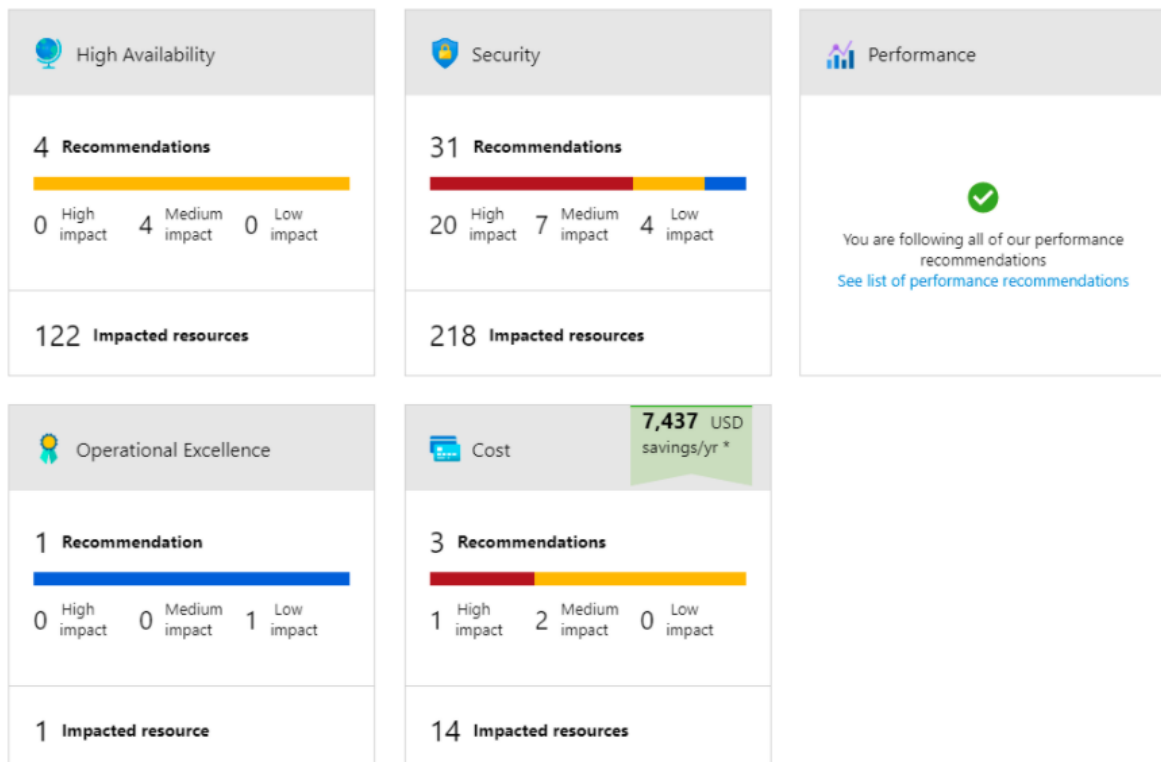
(Incorrect)

- ◯

Availability

Explanation

Keywords: *azure advisor,* ***not,*** *category => 5 category recommendation (high availability, security, performance, operational excellence, cost)*

Correct answer is ***Scalability***

Azure Advisor Hub provides recommendations on **high availability, security, performance, operational excellence, and cost**. It does not provide recommendations on scalability.
Reference: https://docs.microsoft.com/en-us/azure/advisor/advisor-get-started

Other options are not correct as the advisor provides recommendations for ***availability, cost,*** and ***performance***.

Question 34: Correct

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

Statements	Yes	No
1. To use Azure Active Directory (Azure AD) credentials to sign in to a computer that runs windows 10, the computer must be joined to Azure AD.	○	○
2. Users in Azure Active Directory (Azure AD) are organized by using resource groups.	○	○
3. Azure Active Directory (Azure AD) groups support dynamic membership rules.	○	○

- ☑

  Azure Active Directory (Azure AD) groups support dynamic membership rules.

  (Correct)

- ☐

  Users in Azure Active Directory (Azure AD) are organized by using resource groups.

- ☑

  To use Azure Active Directory (Azure AD) credentials to sign in to a computer that runs windows 10, the computer must be joined to Azure AD.

  (Correct)

Explanation
Statement ***To use Azure Active Directory (Azure AD) credentials to sign in to a computer that runs windows 10, the computer must be joined to Azure AD*** is correct - To log into any computer using AD credentials, that computer must have joined AD. Since it speaks to using Azure AD credentials, then the computer must be joined to Azure AD directly, or by an AAD hybrid join.

Question 35: **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 al
        lowed to use dropdown.
```

You have two services with different SLAs. The composite SLA is determined by

Multiplying both SLAs
Lowest SLA associated with the application
Highest SLA associated with the application
Average of both SLAs

- ◉

  Multiplying both SLAs

  (Correct)

- ○

  Highest SLA associated with the application

- ○

  Average of both SLAs

- ○

 **Lowest SLA associated with the application**

Explanation
Correct answer is ***Multiplying both SLAs***.

When combining SLAs across different service offerings, the resultant SLA is called a ***Composite SLA***. Composite SLA is usually calculated by ***Multiplying SLAs***.

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.

Web app 99.95 %   SQL Database 99.99 %
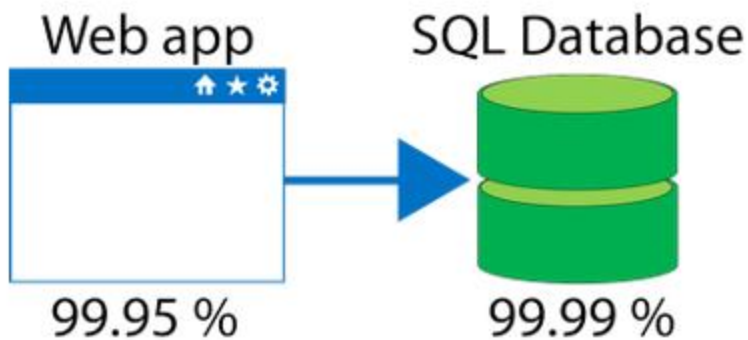
If either service fails the whole application will fail. In general, the individual
probability values for each service are independent. However, the composite SLA
value for this application is:

```
SLA Calculation

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 36: **Correct**
Your organization wants to create a secure communication tunnel between its
branch offices.

Which of the following technologies can't be used?

- ○

  Azure ExpressRoute

- ◉

  Implicit FTP over SSL

  (Correct)

- ○

    Point-to-site virtual private network

- ○

    Site-to-site virtual private network

Explanation
Correct answer is option *Implicit FTP over SSL*

FTP over SSL can't be used to create a secure communication tunnel.

Other options are not correct as the following options can be used to create a secure communication tunnel between locations:

- Point-to-site virtual private network
- Azure ExpressRoute
- Site-to-site virtual private network

Question 37: **Incorrect**
Your company plans to migrate all its network resources to Azure. You need to start the planning process for migration.

What should you create first?

- ○

    Resource Group

- ◉

    Management Group

    (Incorrect)

- ○

    Virtual Network

- ○

    Subscription

    (Correct)

Explanation
Keywords: migration to azure, first step => create a subscription

Correct answer is *Subscription*

When you signed up to try out Azure, you created at least one subscription to get started. Every resource that is deployed must be associated with a subscription so that billing for that item can be processed.

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. There are two types of subscription boundaries that you can use, including *Billing boundary* & *Access control boundary*.
Reference: https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/decision-guides/subscriptions/

Other options are not correct.

Option *Resource Group* and *Virtual Network* are incorrect - You first need a subscription to create any resource like Resource group or virtual network.

Option *Management Group* is incorrect - *Management groups* are containers that help you manage access, policy, and compliance for multiple subscriptions. You can start using Azure services without a Management group, by creating a Subscription directly.

Question 38: **Correct**
You are planning to deploy several Azure virtual machines. You need to control the ports that devices on the Internet can use to access the virtual machines.

What should you use?

- ◉

  Network Security Group (NSG)

  (Correct)

- ○

  Azure Key Vault

- ⚪

    Application security groups (ASG)

- ⚪

    Azure Active Directory (Azure AD)
Explanation
Keywords: *virtual machines, port-level access control => NSG*

Correct answer is **Network Security Group (NSG)**

Network Security Groups (NSG) allow you to filter network traffic to and from Azure resources in an Azure virtual network. An NSG can contain multiple inbound and outbound security rules that enable you to filter traffic to and from resources by source and destination IP address, port, and protocol.
Reference: https://docs.microsoft.com/en-us/azure/virtual-network/security-overview#network-security-groups

Other options are not correct.

Option **Azure Active Directory (Azure AD)** is incorrect - *Azure Active Directory* is a cloud-based identity and access management service. Azure AD helps employees of an organization sign in and access resources.
Reference: https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-whatis

Option **Azure Key Vault** is incorrect - *Azure Key Vault* is a centralized cloud service for storing your applications' secrets. Key Vault helps you control your applications' secrets 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

Option **Application security groups (ASG)** is incorrect - *Application security groups (ASG)* enable you to group virtual machines and define network security policies based on those groups. This feature allows you to reuse your security policy at scale without manual maintenance of explicit IP addresses.
Reference: https://docs.microsoft.com/en-us/azure/virtual-network/application-security-groups

Question 39: **Incorrect**

You need to view a list of planned maintenance events that can affect the availability of an Azure subscription.

Which blade should you use from the Azure portal?
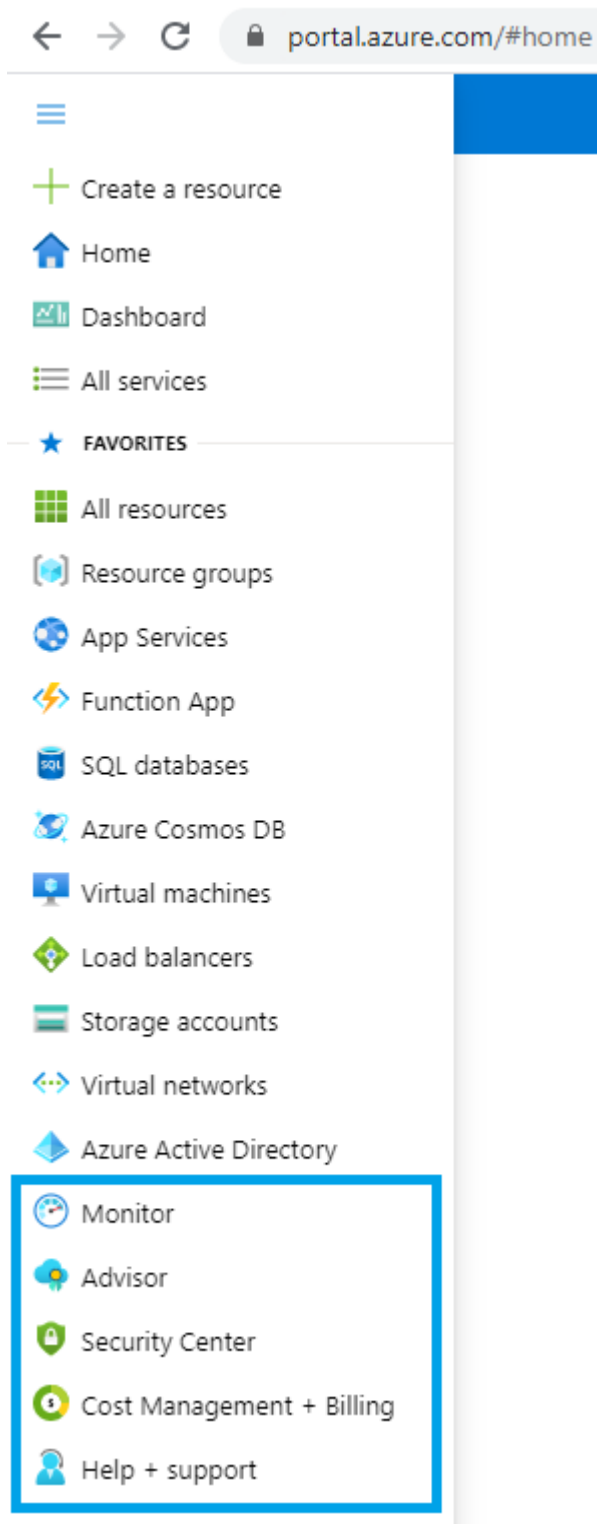
Advisor

- ◯

Security Center

- ◯

Help+support

(Correct)

- ◉

Monitor

(Incorrect)

Explanation
Correct answer is option *Help+support*
Go to *Help + Support* and then go to *Service Health*

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. Azure Service Health can also help you prepare for planned maintenance and changes that could affect the availability of your resources.

Reference: https://azure.microsoft.com/en-us/features/service-health/

Other options are not correct.

Option **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 **Monitor** is incorrect - *Azure Monitor* helps you understand how your applications are performing and proactively identifies issues affecting the application. Monitors do not provide the capability to generate alerts based on usage.
Reference: https://docs.microsoft.com/en-us/azure/azure-monitor/overview

Option **Advisor** is incorrect - *Azure Advisor Hub* is a free service built into Azure that provides recommendations on **high availability, security, performance, operational excellence and cost**. 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

Question 40: **Correct**
The compute options give you different levels of control over the configuration of the environment in which your application runs. Which of the following lists the compute options in order of your control from "most control" to "least control"?

Select the correct option.

- ○

  Containers > Serverless Computing > Virtual Machines

- ○

  All are the same level of controls

- ◉

  Virtual Machines > Containers > Serverless Computing

  (Correct)

- ○

Serverless Computing > Containers > Virtual Machines
Explanation
Correct answer is option *Virtual Machines > Containers > Serverless Computing*

Virtual Machines comes under *Infrastructure as a service (IaaS)* offering, and provides the most control, like installing the operating system, deploying applications, managing traffic.

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 are packaged into a "container" and then a standard runtime environment is used to execute the app.

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, which makes it easy to develop, deploy and execute code without worrying about the underlying hardware, operating system, or application containers.

Reference: https://azure.microsoft.com/en-us/overview/what-is-iaas/
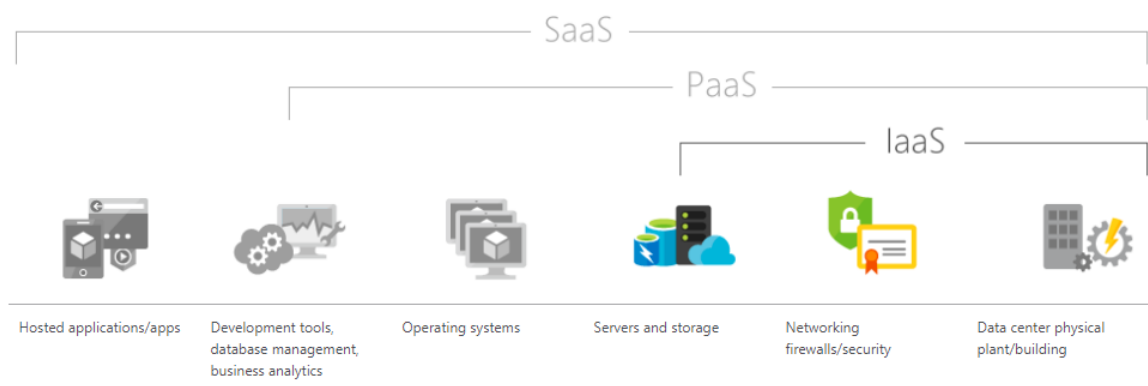
Other options are not correct.

Question 41: **Incorrect**
Which is true about Azure Load Balancer?

Select the correct option.

- ○

   Azure Load Balancer distributes traffic among similar systems, making your services more highly available

   (Correct)

- ○

  Azure Load Balancer works with internet-facing traffic only

- ○

  Azure Load Balancer works with internal traffic only

- ◉

  You must use Azure Load Balancer only if you want to distribute traffic among your virtual machines running in Azure

  (Incorrect)

Explanation
Correct Answer is option *Azure Load Balancer distributes traffic among similar systems, making your services more highly available*

Azure Load Balancer provides high availability by distributing incoming traffic among healthy similar systems (eg. Virtual machines or MySql DB). If one system is unavailable, Azure Load Balancer stops sending traffic to it. It then directs traffic to one of the responsive servers, making services highly available
Reference: https://docs.microsoft.com/en-us/azure/virtual-

Other options are not correct.

Option **Azure Load Balancer works with internet-facing traffic only** is incorrect - *Azure Load Balancer* works on Layer-4 (TCP, UDP) for traffic distribution between similar resources in your Virtual Network *(internal traffic)* and on Layer-7 (http(s)) to handle internet-facing traffic.

Option **Azure Load Balancer works with internal traffic only** is incorrect - *Azure Load Balancer* works on Layer-4 (TCP, UDP) for traffic distribution between similar resources in your Virtual Network *(internal traffic)* and on Layer-7 (http(s)) to handle internet-facing traffic.

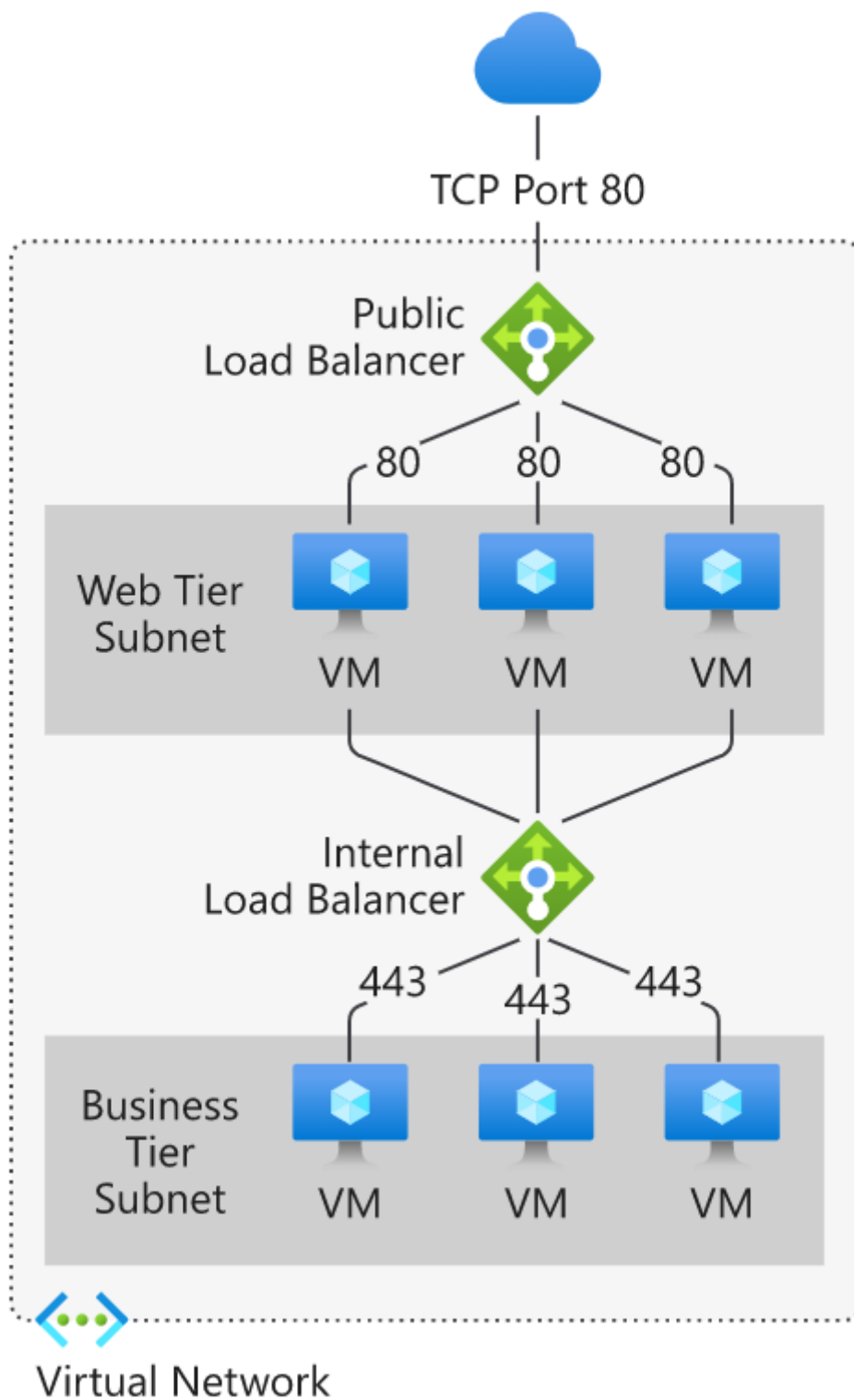Option **You must use Azure Load Balancer only if you want to distribute traffic among your virtual machines running in Azure** is incorrect - Azure Load Balancer distributes traffic among similar systems, making your services more highly available, these similar systems can be Virtual Machines or Azure SQL Server Database or other similar services.

Question 42: **Correct**
Which of the following is used when someone is only concerned about the code running the service, instead of the underlying platform or infrastructure?

Select the correct option.

- ○

  Azure Container

- ○

  Azure App Service

- ○

  Logic App

- ◉

  Azure Functions

  (Correct)

Explanation
Keywords: *platform independence, infrastructure independence => Azure Functions*

Correct answer is **Azure Functions**

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/

Other options are not correct.
Option **Logic App** is incorrect - *Azure Logic Apps* helps you automate and orchestrate *tasks, business processes, and workflows* when you need to integrate apps, data, systems, and services across enterprises or organizations. Logic Apps is a serverless solution, but you can not run custom code with it.
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. Containers require the management of underlying infrastructure using services like AKS.
Reference: https://docs.microsoft.com/en-us/learn/modules/discuss-why-cloud-services/2-define-cloud-compute

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. Azure App Service enables you to build and host web apps, mobile back ends, and RESTful APIs in the programming language of your choice.
Reference: https://docs.microsoft.com/en-us/azure/app-service/overview

Question 43: **Correct**
To which cloud models can you deploy physical servers?

Select the correct option.

- ○

  Private cloud, Hybrid cloud, and Public cloud

- ○

Private cloud

- ○

Hybrid cloud

- ◉

Private cloud and Hybrid cloud

(Correct)

Explanation
Correct Answer is option *Private cloud and Hybrid cloud*

A private cloud is on-premises so you can deploy physical servers. A hybrid cloud is a mix of on-premise and public cloud resources. As you can deploy physical servers on-premises, Hybrid cloud also became a valid option here.

```
Private cloud = Physical server managed by you.

Hybrid cloud = Private cloud (physical server) + Public cloud
```

Other options are not correct.

Question 44: **Correct**
```
1.    Exam notes:
2.    - For each of the following statements, check the checkbox if the statement is corr
      ect.
3.    - Each correct selection is worth one point in the main exam.
```

Statements	Yes	No
1. Azure AI Bot provides a digital online assistant that offers speech support.	○	○
2. Azure Functions uses past training to provide predictions that have a high probability.	○	○
3. Azure Machine Learning processes data from millions of sensors.	○	○
4. Azure Data Lake Analytics can run massively parallel data transformation and processing programs across petabytes of data.	○	○
5. Azure SQL Data Warehouse is a cloud-based service that leverages massively parallel processing (MPP) to quickly run complex queries across petabytes of data in a relational database.	○	○

- ☑

  Azure Data Lake Analytics can run massively parallel data transformation and processing programs across petabytes of data.

  (Correct)

- ☐

  Azure Machine Learning processes data from millions of sensors.

- ☑

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

  (Correct)

- ☐

  Azure Functions uses past training to provide predictions that have a high probability.

- ☑

  Azure SQL Data Warehouse is a cloud-based service that leverages massively parallel processing (MPP) to quickly run complex queries across petabytes of data in a relational database.

  (Correct)

Explanation

Statement ***Azure AI Bot provides a digital online assistant that offers speech support*** is correct - Azure AI bot provides a digital online assistant that provides speech support. Bots provide an experience that feels less like using a computer and more like dealing with a person - or at least an intelligent robot. They can be used to shift simple, repetitive tasks, such as making a dinner reservation or gathering profile information, onto automated systems that may no longer require direct human intervention.

Reference: https://docs.microsoft.com/en-us/azure/bot-service/bot-service-overview-introduction?view=azure-bot-service-4.0

Statement ***Azure Functions uses past training to provide predictions that have a high probability*** is incorrect - It is not Azure Functions, but Azure Machine Learning that uses past training to provide predictions that have high probability.

Statement ***Azure Machine Learning processes data from millions of sensors*** is incorrect - IoT Hub (Internet of things Hub) provides data from millions of sensors.

Statement ***Azure Data Lake Analytics can run massively parallel data transformation and processing programs across petabytes of data*** is correct - You can process big data jobs in seconds with Azure Data Lake Analytics. You can process petabytes of data for diverse workload categories such as querying, ETL, analytics, machine learning, machine translation, image processing, and sentiment analysis by leveraging existing libraries written in .NET languages, R, or Python.

Reference: https://azure.microsoft.com/en-gb/services/data-lake-analytics/

Statement ***Azure SQL Data Warehouse is a cloud-based service that leverages massively parallel processing (MPP) to quickly run complex queries across petabytes of data in a relational database*** is correct - Azure SQL Data Warehouse (SQL DW) is a cloud-based Platform-as-a-Service (PaaS) offering from Microsoft. It is a large-scale, distributed, MPP (massively parallel processing) relational database technology in the same class of competitors as Amazon Redshift or Snowflake.

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

Question 45: 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.
```

An organization that hosts its infrastructure in a [*Public Cloud*] can decommission its data center.

- ○

  Private Cloud

- ○

  No change needed

  (Correct)

- ◉

  Hybrid Cloud

  (Incorrect)

Explanation
Keywords: *planning to decommission private datacenter => move to public cloud*

Correct answer is option **No change needed** ie. **Public Cloud**

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. *You can migrate your resources to the public cloud, and decommission your datacenter.* 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/

Other options are not correct.

Option **Private Cloud** is incorrect - *Private Cloud* is a computing service offered either over the Internet or a private internal network and only to select users instead of the general public. In this scenario, the organization wants to decommission its datacenter (ie. private cloud), which can be achieved by moving resources to the public cloud.
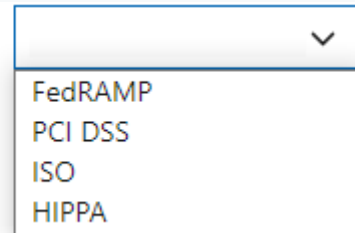**Reference**: https://azure.microsoft.com/en-us/overview/what-is-a-private-cloud/

Option **Hybrid Cloud** is incorrect - *Hybrid Cloud* is a computing environment that combines a *public cloud* and a *private cloud* by allowing data and applications to be shared between them.

Reference: https://azure.microsoft.com/en-us/overview/what-is-hybrid-cloud-computing/

Question 46: **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 al
        lowed to use dropdown.
```

In Azure, security standards which relates to cardholder data is ⌄

FedRAMP
PCI DSS
ISO
HIPPA

- ○

  FedRAMP

- ○

  ISO

- ◉

  PCI DSS

  (Correct)

- ○

  HIPPA

Explanation
Keywords: *cardholder data => PCI DSS*

Correct answer is **PCI DSS**

The Payment Card Industry (PCI) Data Security Standards (DSS) is a global information security standard to prevent fraud through increased control of credit card data. Organizations must follow PCI DSS standards if they accept payment cards from the major credit card brands such as Visa, MasterCard. Compliance with PCI DSS is required for any organization that stores, processes, or transmits payment and cardholder data.
Reference: https://docs.microsoft.com/en-us/microsoft-365/compliance/offering-pci-dss

Question 47: **Correct**
Which is the best way for an organization to ensure that the team deploys only cost-effective virtual machine SKU sizes?

Select the correct option.

- ○

  Create an Azure RBAC role that defines the allowed virtual machine SKU sizes

- ○

  Periodically inspect the deployment manually to see which SKU sizes are used

- ◉

  Create a policy in Azure Policy that specifies the allowed SKU sizes

(Correct)

Explanation
Correct answer is option ***Create a policy in Azure Policy that specifies the allowed SKU sizes***

After you enable this policy, that policy is applied when you create new virtual machines or resize existing ones. Azure Policy also evaluates any current virtual machines in your environment.

Other options are not correct.

Option ***Periodically inspect the deployment manually to see which SKU sizes are used*** is incorrect - It's a manual step, that will not restrict to create VMs from non-allowed SKUs.

Option ***Create an Azure RBAC role that defines the allowed virtual machine SKU sizes*** is incorrect - Azure RBAC enables you to create roles that define access permissions, but it doesn't enable you to define allowed virtual machine SKU sizes.

Question 48: **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.
```

An Azure region [*Is found in each country where Microsoft has a subsidiary office*]

- ◉

  contains one or more data centers that are connected by using a low-latency network

  (Correct)

- ○

  Contains one or more data centers that are connect by using a high-latency network

- ○

  No change needed

- ○

Can be found in every country in Europe and the Americas only
Explanation
Correct answer is *contains one or more data centers that are connected by using a low-latency network*

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.
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
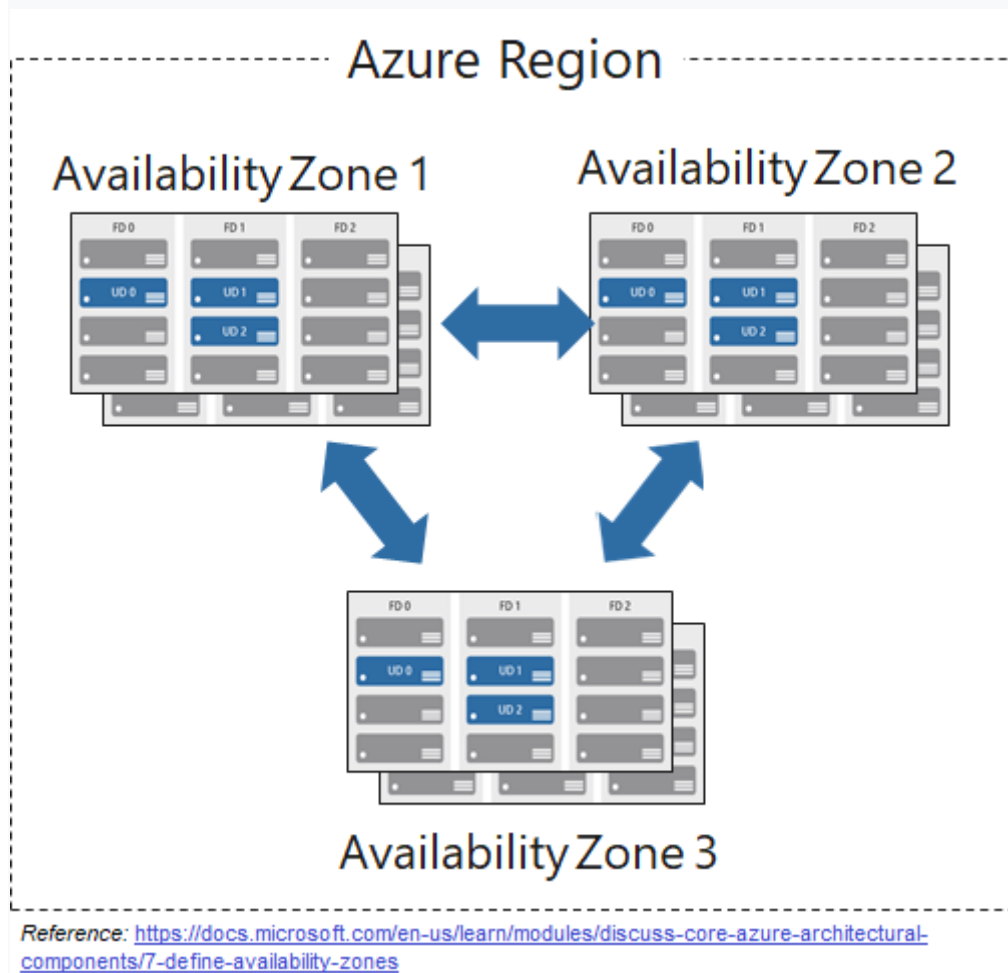
Other options are not correct.

Option ***Is found in each country where Microsoft has a subsidiary office*** is incorrect - it's not a rule that Microsoft will have a region in each country where Microsoft has an office.

Option ***Can be found in every country in Europe and the Americas only*** is incorrect - Azure is available in many Regions, across many countries (55+)

Option ***Contains one or more data centers that are connect by using a high-latency network*** is incorrect - *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.

Question 49: **Incorrect**
Your development team is interested in writing Graph-based applications that take advantage of the Gremlin API.

Which option would be ideal for that scenario?

- ○

  Azure SQL Database

- ◉

  Azure Databricks

  (Incorrect)

- ○

  Azure Cosmos DB

  (Correct)

- ○

  Azure Database for PostgreSQL

Explanation
Correct answer is option ***Azure Cosmos DB***

Azure Cosmos DB supports SQL, MongoDB, Cassandra, Tables, and Gremlin APIs.

Other options are not correct.

Question 50: **Correct**
How can the IT department use biometric properties, such as facial recognition, to enable delivery drivers to prove their identities?

Select the correct option.

- ○

  Conditional Access

- ◉

  Multifactor authentication

  (Correct)

- ○

  SSO

- ○

  Azure Policy

Explanation

Correct answer is option *Multifactor authentication*

Authenticating through multifactor authentication can include something the user knows, something the user has, and something the user is.

Other options are not correct.

Option *SSO* is incorrect - Although SSO enables a user to remember only one ID and one password to access multiple applications, it doesn't use biometric properties to verify the user's identity.

Option *Azure Policy* is incorrect - Azure Policy applies restrictions on Resources (eg. VMs) and not on users.

Option *Conditional Access* is incorrect - Although Conditional Access enables you to allow or deny access to resources based on identity signals, it doesn't use biometric properties to verify the user's identity.

Question 51: **Incorrect**

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

Statements	Yes	No
1. Microsoft SQL Server 2019 installed on an Azure virtual machine is an example of Platform as a service (PaaS).	○	○
2. Azure SQL Database is an example of Platform as a service (PaaS).	○	○
3. Azure Cosmos DB is an example of Software as a service (SaaS).	○	○

- ☑

  Azure SQL Database is an example of Platform as a service (PaaS).

  (Correct)

- ☐

  Microsoft SQL Server 2019 installed on an Azure virtual machine is an example of Platform as a service (PaaS).

- ☑

  Azure Cosmos DB is an example of Software as a service (SaaS).

  (Incorrect)

Explanation
Statement **Microsoft SQL Server 2019 installed on an Azure virtual machine is an example of Platform as a service (PaaS)** is incorrect - Installing *Microsoft SQL Server 2019* on a Virtual machine falls under Infrastructure as a Service (IaaS) as you will be installing the MS SQL server instance, and will manage its updates.

Statement **Azure SQL Database is an example of Platform as a service (PaaS)** is correct - It's correct. *Azure SQL Server Database* is a relational database as a service (DaaS) that falls under the *Platform as a service (PaaS)* category. It's under based on the latest stable version of the 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/

Statement **Azure Cosmos DB is an example of Software as a service (SaaS)** is incorrect - *Azure Cosmos is a Platform as a service (PaaS) service.* It's 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 52: **Incorrect**
How do you get access to services in Private Preview mode?

Select the correct option.

- ○

  You cannot use private preview services

- ◉

  They are available in the marketplace. You simply use them

  (Incorrect)

- ○

  You must agree to terms of use first

- ○

  You must apply to use them

  (Correct)

Explanation
Keywords: *service in private preview => first apply for it*

Correct answer is **You must apply to use them**

An Azure feature in, **Private Preview**, is available to certain Azure customers for evaluation purposes. You must apply to use them.
Reference: https://azure.microsoft.com/en-in/support/legal/preview-supplemental-terms/

Other options are not correct.

Option *You cannot use private preview services* is incorrect - You should apply to use a service in Private preview.

Option *You must agree to terms of use first* is incorrect - Firstly you need to apply for a private preview feature.

Option *They are available in the marketplace. You simply use them* is incorrect - Public preview features are available in the market place, for private preview features, you will need to apply to use them.

Question 53: **Correct**
A company is planning to host an application on a set of Virtual Machines. Virtual Machines are going to be running for a prolonged duration of time. Which of the following should be considered to reduce the overall cost?

Select the correct option.

- ○

  Virtual Machine Scale sets

- ○

  Azure Resource Groups

- ◉

  Azure Reservations

  (Correct)

Explanation
Keywords: *virtual machine, long-running, save cost => use reservations*

Correct answer is *Azure Reservations*

Azure Reservations help you save money by committing 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.

Option **Azure Resource Groups** is incorrect - *Resource Groups* is a unit of management for resources in Azure, allows you to logically group Azure Resources together. Resource groups do not help in reducing service usage costs.
Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview#resource-groups

Option **Virtual Machine Scale sets** is incorrect - *Azure virtual machine scale sets* let you create and manage a group of load-balanced VMs instances, which can automatically increase or decrease in response to demand. In this scenario, VMs will be continuously running for a long duration, so Scale sets will not help in cost saving.
Reference: https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/overview

Question 54: **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.
```

[*Authorization*] is the process of verifying a user's credentials.

- ○

   Ticketing

- ○

   Federation

- ◉

   Authentication

   (Correct)

- ○

   No change needed

Explanation
Keywords: credentials verification => Authentication

Correct answer is ***Authentication***

Authentication means confirming your own identity, whereas *authorization* means being allowed access to the system. In even simpler terms **authentication** is the process of verifying yourself, while **authorization** is the process of verifying what you have access to.

Other options are not correct.

Question 55: **Incorrect**
Azure Germany is available to eligible customers and partners globally who intend to do business in the EU/EFTA, including the United Kingdom. How many Azure Germany regions are there?

Select the correct option.

- ○

    4

- ◉

    2

    (Incorrect)

- ○

    3

- ○

    1

    (Correct)

Explanation
Correct answer is option *1*

Microsoft Azure Germany is a physically isolated region of Microsoft Azure, *with one region* (Germany West Central). It uses world-class security and compliance services

that are critical to German data privacy regulations for all systems and applications built on its architecture.

References:

https://azure.microsoft.com/en-us/global-infrastructure/geographies/#geographies

Select a geography

| Germany ▼ | ☑ Show nearby geographies |

Austria   Denmark   Europe   France   **Germany**   Greece   Italy   Norway   Poland   Spain

Regions	Germany West Central Start free ›
Location	Frankfurt
Year opened	2019
Availability Zones presence	Available with 3 zones
Compliance ⌄	Azure compliance offerings
Data residency	Stored at rest in Germany Learn more
Disaster Recovery	Cross-region options: Azure Site Recovery Region Pairing

Create a virtual machine

(US) North Central US

(US) West US

Basics Disks Networking Mana

(Africa) South Africa North

(Asia Pacific) Central India

Create a virtual machine that runs Linux or \
image. Complete the Basics tab then Review
tab for full customization. Learn more ☐

(Asia Pacific) East Asia

(Asia Pacific) Japan East

Project details

(Asia Pacific) Korea Central

Select the subscription to manage deployed
your resources.

(Canada) Canada Central

(Europe) France Central

Subscription * ⓘ

(Europe) Germany West Central

Resource group * ⓘ

(Europe) Norway East

(Europe) Switzerland North

Instance details

(Middle East) UAE North

Virtual machine name * ⓘ

Region * ⓘ   (Europe) Germany West Central   ⌄

Availability options ⓘ   No infrastructure redundancy required   ⌄

Image * ⓘ   🔵 Ubuntu Server 20.04 LTS - Gen2   ⌄
                                    See all images

Azure Spot instance ⓘ   ☐

Size * ⓘ   Standard_DS1_v2 - 1 vcpu, 3.5 GiB memory ($48.91/month) ⌄
                                    See all sizes

Other options are not correct.