

AZ-900: Microsoft Azure Fundamentals

Sample Questions

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Microsoft is exploring the possibility of providing sample questions as an exam preparation resource, and we would like your feedback. While we prefer that you complete the [survey](#) after taking the exam, you may complete it at any time. Thank You!

User Guide

These sample questions are intended to provide an overview of the style, wording, and difficulty of the questions that you are likely to experience on this exam. These questions are **not** the same as what you will see on the exam nor is this document illustrative of the length of the exam or its complexity (e.g., you may see additional question types, multiple case studies, and possibly labs). These questions are **examples** only to provide insight into what to expect on the exam and help you determine if additional preparation is required.

In the first section, you will find the questions without answers so that you can test your knowledge. In the second section, the answer, a rationale, and a URL that will link you to additional information is provided immediately below each question.

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Questions

Question # 1 (Multiple Choice)

Which tool is used by Azure Active Directory (Azure AD) to provide access to resources based on organizational policies?

- A. multi-factor authentication (MFA)
- B. single sign-on (SSO)
- C. administrative units
- D. Conditional Access

Question # 2 (Sentence Completion)

Select the answer that correctly completes the sentence.

Single sign-on (SSO) is _____ method that enables users to sign in the first time and access various applications and resource by using same password.

- A. a validation
- B. an authentication
- C. a configuration
- D. an authorization

Question # 3 (Matching)

Match the services on the left to the correct descriptions on the right.

Services	Descriptions
A. Pricing calculator	_____ 1. Estimates workload costs
B. TCO calculator	_____ 2. Estimates the cost savings by comparing datacenter costs to running the same workload on Azure
C. Cost management	_____ 3. Helps control, analyze, and optimize workload costs

Question # 4 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ is a repeatable set of governance tools that helps development teams quickly build and create new environments while adhering to organizational compliance to speed up development and deployment.

- A. Azure DevOps
- B. A Continuous Integration/Continuous Deployment (CI/CD) pipeline configuration
- C. Azure Blueprints
- D. Azure Policy

Question # 5 (Matching)

Match the services on the left to the correct descriptions on the right.

Services	Descriptions
A. Infrastructure as a service (IaaS)	_____ 1. Provides hosting and management of an application and its underlying infrastructure, as well as any maintenance, upgrades, and security patching
B. Platform as a service (PaaS)	_____ 2. Provides a fully managed environment for developing, testing, delivering, and managing cloud-based applications
C. Software as a service (SaaS)	_____ 3. Provides servers and virtual machines, storage, networks, and operating systems on a pay-as-you-go basis

Question # 6 (Multiple Choice)

Which cloud approach is used by organizations to take full advantage of on-premises technology investments and allows data and applications to be shared between two environments?

- A. public cloud
- B. private cloud
- C. hybrid cloud
- D. on-premises datacenter

Question # 7 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ copies data to a secondary region from the primary region across multiple datacenters that are located many miles apart.

- A. Read-access geo-redundant storage (RA-GRS)
- B. Zone redundant storage (ZRS)
- C. Geo-redundant storage (GRS)
- D. Locally-redundant storage (LRS)

Question # 8 (Multiple Choice)

Which option is used to set the communication between an on-premises VPN device and an Azure VPN gateway through an encrypted tunnel over the internet?

- A. ExpressRoute
- B. Point-to-Site (P2S) VPN
- C. Site-to-Site VPN

Question # 9 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ enables the secure communication of messages between millions of IoT devices and a cloud-based solution.

- A. Azure IoT Hub
- B. Azure Digital Twins
- C. Azure IoT Edge
- D. Azure IoT Central

Question # 10 (Multiple Choice)

Which Azure security service protects against attacks in which an attacker sends multiple requests to a web resource to exceed a website's capacity and prevent the web resource from functioning correctly?

- A. Azure Defender
- B. Azure DDoS Protection
- C. Azure Sentinel
- D. Azure Firewall

Question # 11 (Multiple Choice)

Which Azure serverless computing technology provides the ability to execute workflows to automate business scenarios by using triggers without writing any code?

- A. Azure Functions
- B. Azure Logic Apps
- C. Azure Front Door
- D. Azure DevOps

Question # 12 (Multiple Choice)

A team is developing a new cloud-based application that leverages the Gremlin API.

Which Azure database option is the most suitable for the new application?

- A. Azure Cosmos DB
- B. Azure SQL Managed Instance
- C. Azure Database for PostgreSQL
- D. Azure Database for MySQL

Question # 13 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ enables you to scale to thousands of virtual machines for high-performance computing and large-scale parallel jobs.

- A. An Azure virtual machine scale set
- B. An availability set
- C. Azure Batch
- D. An availability zone

Question # 14 (Matching)

Match the services on the left to the correct descriptions on the right.

Services

- A. Azure IoT Central
- B. Azure IoT Hub
- C. Azure Sphere

Descriptions

- _____ 1. Used to quickly create a web-based dashboard to enable reporting and communication with IoT devices
- _____ 2. Used to communicate to IoT devices by sending and receiving messages
- _____ 3. Used to provide the highest degree of security to ensure that the device was not tampered with

Question # 15 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ enables you to provision a group of matching and load-balanced virtual machines in Azure.

- A. Azure Logic Apps
- B. An availability set
- C. An Azure virtual machine scale set
- D. Azure Load Balancer

Question # 16 (Matching)

Match the services on the left to the correct descriptions on the right.

Services

- A. Azure Machine Learning
- B. Azure Bot Service
- C. Azure Cognitive Services

Descriptions

- _____ 1. Used to predict future results by using historical data and training models
- _____ 2. Used to implement a virtual agent that can respond to human inquiries by using natural language
- _____ 3. Used to identify content based on images

Question # 17 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ is supported by ExpressRoute for connecting an on-premises network to Azure.

- A. A Point-to-Site VPN
- B. A point-to-point Ethernet connection
- C. A Site-to-Site VPN
- D. Azure Peering service

Question # 18 (Multiple Choice)

Which Azure feature enables you to organize multiple subscriptions in hierarchies for unified policies and compliance?

- A. Resource groups
- B. Management groups
- C. Azure Active Directory (Azure AD)
- D. Azure Container Instances

Question # 19 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ alerts you when service issues occur in an Azure environment, such as a regional Azure outage that affects all Azure customers.

- A. Azure Monitor
- B. Azure Advisor
- C. Azure Service Health
- D. Azure Application Insights

Question # 20 (Matching)

Match the services on the left to the correct descriptions on the right.

Services

- A. Authorization
- B. Authentication

Descriptions

- _____ 1. Confirms the identity of a person who wants access
- _____ 2. Grants the proper access to a legitimate user

Questions and Answers

Question # 1 (Multiple Choice)

Which tool is used by Azure Active Directory (Azure AD) to provide access to resources based on organizational policies?

- A. multi-factor authentication (MFA)
- B. single sign-on (SSO)
- C. administrative units
- D. Conditional Access

Answer:	D
Objective:	5.1 Describe core Azure identity services
Rationale:	Conditional Access is the tool used by Azure Active Directory to allow (or deny) access to resources based on identity signals. Conditional access is a more refined MFA (multifactor authentication) method.
URL:	https://docs.microsoft.com/en-us/learn/modules/secure-access-azure-identity-services/4-what-are-mfa-conditional-access

Question # 2 (Sentence Completion)

Select the answer that correctly completes the sentence.

Single sign-on (SSO) is _____ method that enables users to sign in the first time and access various applications and resource by using same password.

- A. a validation
- B. an authentication
- C. a configuration
- D. an authorization

Answer:	B
Objective:	5.1 Describe core Azure identity services
Rationale:	Single sign-on is an authentication method that allows users to sign in using one set of credentials to login across applications. Single sign-on makes it easier to manage passwords and increases security capabilities.
URL:	https://docs.microsoft.com/en-us/learn/modules/secure-access-azure-identity-services/3-what-is-azure-active-directory

Question # 3 (Matching)

Match the services on the left to the correct descriptions on the right.

Services

- A. Pricing calculator
- B. TCO calculator
- C. Cost management

Descriptions

- _____ 1. Estimates workload costs
- _____ 2. Estimates the cost savings by comparing datacenter costs to running the same workload on Azure
- _____ 3. Helps control, analyze, and optimize workload costs

Answer:	A1, B2, C3
Objective:	6.1 Describe methods for planning and managing costs
Rationale:	Pricing calculator helps you to estimate workload cost. TCO Calculator provided approximate cost savings of operating similar workload on Azure to on-premises datacenter. Azure Cost Management helps to understand Azure bill, manage account.
URL:	https://docs.microsoft.com/en-us/learn/modules/plan-manage-azure-costs/

Question # 4 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ is a repeatable set of governance tools that helps development teams quickly build and create new environments while adhering to organizational compliance to speed up development and deployment.

- A. Azure DevOps
- B. A Continuous Integration/Continuous Deployment (CI/CD) pipeline configuration
- C. Azure Blueprints
- D. Azure Policy

Answer:	C
Objective:	5.2 Describe Azure governance features
Rationale:	Sometimes Cloud environment grow beyond just one subscription, in that case Azure Blueprints help to scale the configuration. Azure Blueprints help with repeatable tasks so that development teams rapidly build and deploy new environments and speed the overall development and deployment phases. Blueprints are a declarative way to orchestrate the deployment of various resource templates.
URL:	https://docs.microsoft.com/en-us/learn/modules/build-cloud-governance-strategy-azure/8-govern-subscriptions-azure-blueprints

Question # 5 (Matching)

Match the services on the left to the correct descriptions on the right.

Services

- A. Infrastructure as a service (IaaS)
- B. Platform as a service (PaaS)
- C. Software as a service (SaaS)

Descriptions

- _____ 1. Provides hosting and management of an application and its underlying infrastructure, as well as any maintenance, upgrades, and security patching
- _____ 2. Provides a fully managed environment for developing, testing, delivering, and managing cloud-based applications
- _____ 3. Provides servers and virtual machines, storage, networks, and operating systems on a pay-as-you-go basis

Answer:	A3, B2, C1
Objective:	1.2 Describe the differences between categories of cloud services
Rationale:	<p>Infrastructure as a service (IaaS) -Offers necessary compute, storage, and networking assets on demand, on a pay-as-you-go basis.</p> <p>Platform as a service (PaaS) - Provide complete development and deployment environment in the cloud, with assets that enable to deliver simple cloud-based apps to cloud-enabled enterprise applications.</p> <p>Software as a service (SaaS) -Host and manage the software application and underlying infrastructure.</p>
URL:	https://docs.microsoft.com/en-us/learn/modules/fundamental-azure-concepts/categories-of-cloud-services

Question # 6 (Multiple Choice)

Which cloud approach is used by organizations to take full advantage of on-premises technology investments and allows data and applications to be shared between two environments?

- A. public cloud
- B. private cloud
- C. hybrid cloud
- D. on-premises datacenter

Answer:	C
Objective:	1.3 Describe the differences between types of cloud computing
Rationale:	<p>Public clouds (For example Microsoft Azure) owned and operated by third-party cloud service providers, to deliver their computing resources such as servers and storage over the Internet. Cloud Provider manage all hardware, software, and other supporting infrastructure.</p> <p>A private cloud refers to cloud computing resources used exclusively by a individual business. A private cloud can be physically located on the company's on-site data Centre.</p> <p>A Hybrid cloud is a type of cloud computing that combines on-premises infrastructure or a private cloud with a public cloud. Hybrid clouds allow data and apps to move between the two environments.</p>
URL:	https://docs.microsoft.com/en-us/learn/modules/fundamental-azure-concepts/types-of-cloud-computing

Question # 7 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ copies data to a secondary region from the primary region across multiple datacenters that are located many miles apart.

- A. Read-access geo-redundant storage (RA-GRS)
- B. Zone redundant storage (ZRS)
- C. Geo-redundant storage (GRS)
- D. Locally-redundant storage (LRS)

Answer:	C
Objective:	2.1 Describe the core Azure architectural components
Rationale:	Geo-redundant storage (GRS) -Replicates your data to a secondary region that is in different geographic locations from the primary region.
URL:	https://docs.microsoft.com/en-us/learn/modules/azure-architecture-fundamentals/regions-availability-zones

Question # 8 (Multiple Choice)

Which option is used to set the communication between an on-premises VPN device and an Azure VPN gateway through an encrypted tunnel over the internet?

- A. ExpressRoute
- B. Point-to-Site (P2S) VPN
- C. Site-to-Site VPN

Answer:	C
Objective:	2.2 Describe core resources available in Azure
Rationale:	Site-to-site VPN: Established between on-premises VPN device and an Azure VPN Gateway that is deployed in a virtual network. This connection type allow communication between any on-premises authorize resource to access a virtual network through an encrypted tunnel.
URL:	https://docs.microsoft.com/en-us/learn/modules/azure-architecture-fundamentals/regions-availability-zones

Question # 9 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ enables the secure communication of messages between millions of IoT devices and a cloud-based solution.

- A. Azure IoT Hub
- B. Azure Digital Twins
- C. Azure IoT Edge
- D. Azure IoT Central

Answer:	A
Objective:	3.1 Describe core solutions available in Azure
Rationale:	The Azure IoT Hub service enables reliable two-way message communications between IoT devices and a cloud-based solution. These capabilities enable customers to provision millions of devices in a secure and scalable manner.
URL:	https://docs.microsoft.com/en-us/learn/modules/iot-fundamentals/2-identify-product-options

Question # 10 (Multiple Choice)

Which Azure security service protects against attacks in which an attacker sends multiple requests to a web resource to exceed a website's capacity and prevent the web resource from functioning correctly?

- A. Azure Defender
- B. Azure DDoS Protection
- C. Azure Sentinel
- D. Azure Firewall

Answer:	B
Objective:	4.1 Describe Azure security features
Rationale:	Distributed denial of service, or DDoS, is a type of attack where an attacker sends multiple requests to an application. This results into the resources being exhausted, impacting the application's availability. DDoS attacks can be targeted at any endpoint that is publicly reachable through the Internet.
URL:	https://docs.microsoft.com/en-us/learn/modules/secure-network-connectivity-azure/4-protect-attacks-azure-ddos-protection

Question # 11 (Multiple Choice)

Which Azure serverless computing technology provides the ability to execute workflows to automate business scenarios by using triggers without writing any code?

- A. Azure Functions
- B. Azure Logic Apps
- C. Azure Front Door
- D. Azure DevOps

Answer:	B
Objective:	3.1 Describe core solutions available in Azure <ul style="list-style-type: none">• describe the benefits and usage of serverless computing solutions that include Azure Functions, and Logic Apps
Rationale:	Azure Logic Apps are designed in a web-based designer and can execute logic triggered by Azure services without writing any code.
URL:	https://docs.microsoft.com/en-us/learn/modules/azure-compute-fundamentals/azure-functions

Question # 12 (Multiple Choice)

A team is developing a new cloud-based application that leverages the Gremlin API.

Which Azure database option is the most suitable for the new application?

- A. Azure Cosmos DB
- B. Azure SQL Managed Instance
- C. Azure Database for PostgreSQL
- D. Azure Database for MySQL

Answer:	A
Objective:	2.2 Describe core resources available in Azure <ul style="list-style-type: none">describe the benefits and usage of Cosmos DB, Azure SQL Database, Azure Database for MySQL, Azure Database for PostgreSQL, and SQL Managed Instance
Rationale:	Azure Cosmos DB is the best solutions, it supports Gremlin API as well as SQL, Cassandra, MongoDB, and Tables.
URL:	https://docs.microsoft.com/en-us/learn/modules/azure-database-fundamentals/azure-cosmos-db

Question # 13 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ enables you to scale to thousands of virtual machines for high-performance computing and large-scale parallel jobs.

- A. An Azure virtual machine scale set
- B. An availability set
- C. Azure Batch
- D. An availability zone

Answer:	C
Objective:	2.2 Describe core resources available in Azure
Rationale:	Azure Batch allows you to scale to thousands of virtual machines for high-performance computing (HPC) and large-scale parallel jobs. Other Azure functionalities allow you to scale multiple VMs, but only Azure Batch will allow for thousands of VMs for HPC.
URL:	https://docs.microsoft.com/en-us/learn/modules/azure-compute-fundamentals/azure-virtual-machines

Question # 14 (Matching)

Match the services on the left to the correct descriptions on the right.

Services

- A. Azure IoT Central
- B. Azure IoT Hub
- C. Azure Sphere

Descriptions

- _____ 1. Used to quickly create a web-based dashboard to enable reporting and communication with IoT devices
- _____ 2. Used to communicate to IoT devices by sending and receiving messages
- _____ 3. Used to provide the highest degree of security to ensure that the device was not tampered with

Answer:	A1, B2, C3	
Objective:	3.1 Describe core solutions available in Azure <ul style="list-style-type: none"> describe the benefits and usage of IoT Hub, IoT Central, and Azure Sphere 	
Rationale:	Azure IoT Central	To quickly create a web-based dashboard to enable reporting and communication with IoT devices
	Azure IoT Hub	To communicate to IoT devices by sending and receiving messages
	Azure Sphere	To provide the highest degree of security to ensure the device has not been tampered with
URL:	https://docs.microsoft.com/en-us/learn/modules/iot-fundamentals/2-identify-product-options	

Question # 15 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ enables you to provision a group of matching and load-balanced virtual machines in Azure.

- A. Azure Logic Apps
- B. An availability set
- C. An Azure virtual machine scale set
- D. Azure Load Balancer

Answer:	C
Objective:	2.2 Describe core resources available in Azure
Rationale:	<p>Virtual machine scale enables you to provision a group of matching and load-balanced virtual machines in Azure.</p> <p>Imagine you are running a website that enables scientists to upload astronomy images that need to be processed. If you duplicated the VM, you would normally need to configure an additional service to route requests between multiple instances of the website. Virtual machine scale sets could do that work for you.</p>
URL:	https://docs.microsoft.com/en-us/learn/modules/azure-compute-fundamentals/azure-virtual-machines

Question # 16 (Matching)

Match the services on the left to the correct descriptions on the right.

Services

- A. Azure Machine Learning
- B. Azure Bot Service
- C. Azure Cognitive Services

Descriptions

- _____ 1. Used to predict future results by using historical data and training models
- _____ 2. Used to implement a virtual agent that can respond to human inquiries by using natural language
- _____ 3. Used to identify content based on images

Answer:	A1, B2, C3	
Objective:	3.1 Describe core solutions available in Azure <ul style="list-style-type: none"> describe the benefits and usage of Azure Machine Learning, Cognitive Services and Azure Bot Service. 	
Rationale:	Azure Machine Learning	To predict future results using historical data and training models. Azure Machine Learning allows you to connect to data to train and test models to find one that will most accurately predict a future result.
	Azure Bot Service	To implement a virtual agent which can respond to human inquiries using natural language. Azure Bot Service allows you to create a virtual agent solution that uses natural language to respond to customer inquiries.
	Azure Cognitive Services	To identify content based on images. The vision services in Azure Cognitive Services add recognition and identification capabilities when you're analyzing pictures, videos, and other visual content.
URL:	https://docs.microsoft.com/en-us/learn/modules/ai-machine-learning-fundamentals/2-identify-product-options	

Question # 17 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ is supported by ExpressRoute for connecting an on-premises network to Azure.

- A. A Point-to-Site VPN
- B. A point-to-point Ethernet connection
- C. A Site-to-Site VPN
- D. Azure Peering service

Answer:	C
Objective:	2.2 Describe core resources available in Azure <ul style="list-style-type: none">• describe the benefits and usage of Virtual Networks, VPN Gateway, Virtual Network peering, and ExpressRoute
Rationale:	<p>A Point-to-point Ethernet connection is supported by ExpressRoute for connecting your on-premises network to Azure.</p> <p>The three models that ExpressRoute supports are:</p> <ul style="list-style-type: none">• CloudExchange colocation• Point-to-point Ethernet connection• Any-to-any-connection
URL:	https://docs.microsoft.com/en-us/learn/modules/azure-networking-fundamentals/express-route-fundamentals

Question # 18 (Multiple Choice)

Which Azure feature enables you to organize multiple subscriptions in hierarchies for unified policies and compliance?

- A. Resource groups
- B. Management groups
- C. Azure Active Directory (Azure AD)
- D. Azure Container Instances

Answer:	B
Objective:	2.1 Describe the core Azure architectural components <ul style="list-style-type: none">• describe the benefits and usage of Management Groups
Rationale:	Management groups 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.
URL:	https://docs.microsoft.com/en-us/learn/modules/azure-architecture-fundamentals/overview

Question # 19 (Sentence Completion)

Select the answer that correctly completes the sentence.

_____ alerts you when service issues occur in an Azure environment, such as a regional Azure outage that affects all Azure customers.

- A. Azure Monitor
- B. Azure Advisor
- C. Azure Service Health
- D. Azure Application Insights

Answer:	C
Objective:	3.2 Describe Azure management tools <ul style="list-style-type: none">• describe the functionality and usage of Azure Service Health
Rationale:	Azure Service Health alerts you about service issues that happen in Azure itself, such as a regional Azure outage
URL:	https://docs.microsoft.com/en-us/learn/modules/monitoring-fundamentals/2-identify-product-options

Question # 20 (Matching)

Match the services on the left to the correct descriptions on the right.

Services

- A. Authorization
- B. Authentication

Descriptions

- _____ 1. Confirms the identity of a person who wants access
- _____ 2. Grants the proper access to a legitimate user

Answer:	A2, B1	
Objective:	5.1 Describe core Azure identity services <ul style="list-style-type: none">• explain the difference between authentication and authorization	
Rationale:	Authentication	To confirm the identity of a person who wants access. Authentication is the process of establishing the identity of a person or service that wants to access a resource.
	Authorization	To grant the proper access to a legitimate user. Authorization is the process of establishing what level of access a legitimate user or service should have.
URL:	https://docs.microsoft.com/en-us/learn/modules/secure-access-azure-identity-services/2-compare-authentication-authorization	