Microsoft Certified: Azure Fundamentals (AZ-900) Practice Exam (Sample)

Study Guide

BY EXAMZIFY

Everything you need from our exam experts!

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

• Practice answering questions under realistic conditions,

• Improve accuracy and speed,

• Review explanations to strengthen weak areas, and

• Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Don't worry about getting everything right, your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations, and take breaks to retain information better.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning.

7. Use Other Tools

Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly — adapt the tips above to fit your pace and learning style. You've got this!

Questions

1. **Which Azure service maintains relationships with resources even after deployment?**

   A. Azure Blueprint

   B. Azure Resource Manager Templates

   C. Both

   D. None

2. **Which solution does NOT meet the goal of filtering traffic based on IP addresses and protocols?**

   A. Deploying and configuring Azure Firewall

   B. Deploying and configuring Web Application Firewall (WAF)

   C. Deploying and configuring a Network Security Group (NSG)

   D. Using Azure DDoS Protection

3. **What is network latency?**

   A. The amount of data that can fit on the connection.

   B. The distance data must travel to reach its destination.

   C. The time it takes for data to travel over the network.

   D. The speed of the data transfer over the network.

4. **What is the function of a VPN Gateway in Azure?**

   A. To manage database queries

   B. To provide reliable backups

   C. To facilitate secure connections over the internet

   D. To store large datasets

5. **Which service helps you diagnose and obtain support when an Azure service issue affects your resources?**

   A. Azure Status

   B. Resource Health

   C. Azure Monitor

   D. Azure Service Health

6. **Which connection method is often considered to have the most secure and reliable performance?**

   A. Point-to-Site VPN

   B. Site-to-Site VPN

   C. Azure ExpressRoute

   D. Public VPN Gateway

7. **Can virtual networks from different subscriptions link to the same Azure DDoS protection plan?**

   A. True

   B. False

   C. Only if they are in the same region

   D. Only for enterprise subscriptions

8. **What is a paired region in Azure?**

   A. A geographical location with two datacenters

   B. A group of resource groups

   C. A service connection between services

   D. A collective term for virtual networks

9. **What is the most appropriate Azure solution to query and transform data for insights?**

   A. Data Lake Analytics

   B. CosmosDB

   C. Blob Storage

   D. Azure SQL Database

10. **What is the primary function of IoT Hub?**

    A. A service that performs batch processing of IoT data

    B. A software-as-a-service (SaaS) solution for IoT management

    C. A service that provides bi-directional connections between IoT devices and applications

    D. A platform for creating custom IoT devices

Answers

SAMPLE

1. A
2. B
3. C
4. C
5. C
6. C
7. A
8. A
9. A
10. C

Explanations

1. Which Azure service maintains relationships with resources even after deployment?

A. Azure Blueprint

B. Azure Resource Manager Templates

C. Both

D. None

The correct answer is Azure Blueprint because this service is specifically designed to help streamline the management of Azure resources by providing a way to define a repeatable set of Azure resources and their configurations. Azure Blueprints allow you to define the requirements, such as policies, role assignments, and resource groups, in a way that maintains relationships among resources throughout their lifecycle, even after deployment. This is especially useful for ensuring compliance and governance at scale. Azure Resource Manager (ARM) templates, on the other hand, are primarily focused on the deployment of individual resources and their configurations but do not inherently maintain relationships among resources after they have been deployed. While they can represent the relationships within the template during deployment, once the resources are created, the ARM templates themselves do not manage or maintain these relationships. Thus, Azure Blueprint serves a unique purpose by offering a structured approach to manage the ongoing relationships and governance of Azure resources, making it the correct choice in this context.

2. Which solution does NOT meet the goal of filtering traffic based on IP addresses and protocols?

A. Deploying and configuring Azure Firewall

B. Deploying and configuring Web Application Firewall (WAF)

C. Deploying and configuring a Network Security Group (NSG)

D. Using Azure DDoS Protection

The Web Application Firewall (WAF) is specifically designed to protect web applications by filtering, monitoring, and analyzing HTTP traffic. It focuses primarily on application-layer security, defending against common attacks such as SQL injection and cross-site scripting (XSS). WAFs generally operate at a higher level in the OSI model, meaning they are not intended for low-level IP and protocol filtering. Therefore, while WAF provides critical protection for web applications, it does not serve the purpose of filtering traffic based on IP addresses and protocols, which is essential for managing network security at lower levels. In contrast, Azure Firewall, Network Security Groups (NSGs), and Azure DDoS Protection do engage with IP addresses and protocols. Azure Firewall allows for both inbound and outbound traffic filtering based on IP addresses and protocols, making it suitable for policies that manage network traffic. Network Security Groups provide even more granular control over traffic to resources within a virtual network, allowing users to define rules based on specific IP address ranges and protocols as needed. Azure DDoS Protection helps to mitigate denial of service attacks but also ensures that legitimate traffic can flow based on the configurations tied to the network resources. Thus, filtering traffic based on IP addresses and protocols is well within the capabilities of Azure

3. What is network latency?

A. The amount of data that can fit on the connection.

B. The distance data must travel to reach its destination.

C. The time it takes for data to travel over the network.

D. The speed of the data transfer over the network.

Network latency refers to the time it takes for data to travel from the source to its destination across a network. This time delay can be influenced by several factors, including the physical distance the data must travel, the quality of the network connection, and any processing delays along the way. A lower latency means a quicker response time, which is crucial for applications requiring real-time data transmission, such as video conferencing or online gaming. The other choices focus on different aspects of networking—data capacity, physical distance, and transfer speed—but they do not accurately define latency itself. While they are related concepts in data transmission, they do not represent the time it takes for the data to be transmitted, which is the essence of latency.

4. What is the function of a VPN Gateway in Azure?

A. To manage database queries

B. To provide reliable backups

C. To facilitate secure connections over the internet

D. To store large datasets

A VPN Gateway in Azure serves the essential function of facilitating secure connections over the internet. It acts as a bridge that creates encrypted tunnels for the transmission of data between Azure virtual networks and on-premises networks or other Azure environments. This enhances security by protecting data as it travels across public networks, ensuring that sensitive information is kept confidential and is safe from interception. The role of a VPN Gateway becomes particularly crucial for organizations that require secure remote access for users or need to establish secure connections to their corporate networks. This can include scenarios like connecting branch offices to the main corporate network or allowing remote employees to access internal resources securely from various locations. In contrast, managing database queries relates to database services, providing reliable backups pertains to data protection strategies, and storing large datasets would be relevant to datasets and storage solutions, none of which align with the primary purpose of a VPN Gateway.

5. Which service helps you diagnose and obtain support when an Azure service issue affects your resources?

A. Azure Status

B. Resource Health

C. Azure Monitor

D. Azure Service Health

The service that specifically helps you diagnose and obtain support during Azure service issues that impact your resources is Azure Service Health. This service provides personalized alerts and guidance when Azure service issues affect your resources. It informs you about service outages, planned maintenance, and other service events that could impact your resources, allowing you to take appropriate action. While Azure Monitor is valuable for observing and analyzing performance metrics across your resources, its primary function is monitoring rather than directly diagnosing service issues or providing updates about service interruptions. In contrast, Azure Status offers a general overview of the overall health of Azure services globally, but does not focus on personalization or specific resources you might be using. Resource Health provides insights into the health of your Azure resources and helps you understand your resources' availability, but it does not deliver notifications or updates on broader service issues. This makes Azure Service Health the best fit for the specific need for diagnostics and support related to Azure service issues affecting resources.

6. Which connection method is often considered to have the most secure and reliable performance?

A. Point-to-Site VPN

B. Site-to-Site VPN

C. Azure ExpressRoute

D. Public VPN Gateway

Azure ExpressRoute is recognized for providing the most secure and reliable performance among the connection methods mentioned. This is primarily because ExpressRoute establishes a private connection between Azure and your on-premises network, bypassing the public internet. This private connection greatly reduces the potential security risks associated with sending data over the internet. Moreover, ExpressRoute connections typically result in more consistent latencies and higher throughput than traditional VPN connections, which are contingent on internet traffic conditions. This makes ExpressRoute particularly valuable for organizations that need a direct, resilient connection for critical applications and data transfers. In comparison, other connection methods like Point-to-Site VPN and Site-to-Site VPN are reliant on public internet infrastructure, making them more susceptible to fluctuations in performance and security vulnerabilities. Public VPN Gateways, while they offer encrypted communication over the internet, share similar concerns regarding reliability and security due to dependence on an external network.

7. Can virtual networks from different subscriptions link to the same Azure DDoS protection plan?

A. True

B. False

C. Only if they are in the same region

D. Only for enterprise subscriptions

The correct answer is that virtual networks from different subscriptions can indeed link to the same Azure DDoS protection plan. This feature allows organizations with multiple subscriptions to manage their DDoS protection centrally and efficiently without the need to configure separate protection plans for each subscription's virtual network.   This flexibility is essential for large organizations or enterprises that may have multiple departments or projects operating under different subscriptions but still require comprehensive DDoS protection for all their resources. By enabling various subscriptions to share a DDoS protection plan, Azure helps simplify management and potentially lower costs associated with DDoS protection.   Other options imply limitations that are not accurate. For instance, suggesting that it's only applicable if the networks are in the same region restricts the functionality that Azure provides, as DDoS protection plans can span across regions. Similarly, indicating that only enterprise subscriptions can link to the DDoS protection plan overlooks the fact that any type of subscription can utilize this feature.

8. What is a paired region in Azure?

A. A geographical location with two datacenters

B. A group of resource groups

C. A service connection between services

D. A collective term for virtual networks

A paired region in Azure refers to a geographical location that contains two datacenters, which are linked together for redundancy and high availability. The primary reason for this design is to ensure that if one datacenter experiences an outage or issue, the other can take over seamlessly, providing resilience for services and data.   Azure regions are paired for various reasons, including data residency, disaster recovery, and compliance requirements. Each paired region works together to support the availability and reliability of applications and services hosted on Azure. This configuration aids in scenarios such as backups, data replication, and failover processes.   The other options describe different concepts not related to the specific definition of a paired region. A group of resource groups refers to a way of organizing resources in Azure for management purposes, while a service connection pertains to connectivity between different Azure services. Lastly, the term for virtual networks refers to a networking construct within Azure that allows connectivity among various resources rather than denoting a geographical concept.

9. What is the most appropriate Azure solution to query and transform data for insights?

A. Data Lake Analytics

B. CosmosDB

C. Blob Storage

D. Azure SQL Database

The most appropriate Azure solution for querying and transforming data for insights is Data Lake Analytics. This service is specifically designed to handle large-scale data processing and analytics. It allows users to run queries using a variety of languages such as U-SQL, an SQL-like language that integrates the concepts of SQL with C#. This capability makes it well-suited for transforming large datasets stored in Azure Data Lake Storage and enables users to extract valuable insights efficiently. Data Lake Analytics provides a serverless approach, meaning that users pay only for the resources they consume during their analytics jobs, which can help manage costs associated with data processing tasks. It also integrates seamlessly with other Azure services, facilitating the end-to-end analytics workflow from data ingestion to transformation and visualization. While other options like CosmosDB and Azure SQL Database are powerful for managing structured and unstructured data, they are primarily databases rather than analytics platforms focused on large-scale transformation and insightful querying. Blob Storage serves as a storage solution for unstructured data but does not provide built-in analytics capabilities. Therefore, Data Lake Analytics stands out as the suitable choice for this use case.

10. What is the primary function of IoT Hub?

A. A service that performs batch processing of IoT data

B. A software-as-a-service (SaaS) solution for IoT management

C. A service that provides bi-directional connections between IoT devices and applications

D. A platform for creating custom IoT devices

The primary function of IoT Hub is to provide bi-directional connections between IoT devices and applications. This service enables secure and reliable communication, allowing devices to send telemetry data to the cloud and receive commands or updates from cloud-hosted applications. This bi-directional capability is essential for creating interactive and responsive applications that utilize data from IoT devices. IoT Hub also supports features such as device-to-cloud and cloud-to-device messaging, which is crucial for scenarios where real-time communication is necessary. This facilitates a variety of use cases, including monitoring, control, and data analytics, which are foundational aspects of building effective IoT solutions. While other options mention various IoT-related functionalities, they do not capture the core purpose of IoT Hub as accurately as the function of establishing and managing bi-directional communications between IoT devices and applications.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://az900.examzify.com

We wish you the very best on your exam journey. You've got this!