Azure Fundamentals

100 PRACTICE QUESTIONS FOR AZ-900

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Top 100 Questions on AZ-900
Microsoft Azure Fundamentals

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Mohamed Azarudeen Z is a renowned expert in Azure AI, Machine Learning, and Cloud Technologies. With a strong foundation in Computer Science and holding a Bachelor of Engineering degree, he has emerged as a thought leader in the ever-evolving field of technology.

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With deep appreciation and Kind regards,

Mohamed Azarudeen Z

10 reasons on why to read this book?

1. If you are searching for a source for az900 before trying the real test, this book is just for you to dive in and have fun learning

2. Azure fundamentals provide a solid foundational knowledge about azure and its domain and terminologies.

3. One can understand the cloud concepts, particularly about Microsoft's Azure which is one of the most popular cloud service providers.

4. This is the detailed syllabus for one who is appearing for AZ900, as this is mentioned in the documentation of Microsoft, I have tried to cover almost all the topics in this practice sets

   - Cloud Concepts (15-20%):
   - Core Azure Services (30-35%):
   - Security, Privacy, Compliance, and Trust (25-30%):
   - Azure Pricing and Support (20-25%).

5. This book contains practice questions for the Azure 900 exam, where you can work on these to get a better idea and clarity about the real test.

6. AZ900 mainly focuses on the fundamental parts of Azure, so it is highly recommended for tech and nontech people to take an AZ900 exam there are no prerequisites for appearing for this exam, you can be a nontech person and still take this exam as this is an entry-level exam.

7. The AZ-900 Microsoft Azure Fundamentals certification exam is designed for individuals who want to demonstrate their foundational knowledge of cloud services and how Microsoft Azure operates. Below is the syllabus for the AZ-900 exam:

8. In this book we not only provide the model questions but also a detailed explanation of why that answer is right so that you can be more precise while answering.

9. By completing all the practice sets in this book you will be able to pass and get certified don't forget that the questions might be a little tricky than the practice sets so understanding is the most important part.

10. We have tried covering all the must-know facts about Azure in regards to AZ900, have fun learning, and all the best for your exam

1. What can you use to automatically send an alert if an administrator stops an Azure virtual machine?

- A. Azure Advisor
- B. Azure Service Health
- C. Azure Monitor
- D. Azure Network Watcher

Answer: A

Explanation:

To automatically send an alert if an administrator stops an Azure virtual machine, you can use Azure Monitor. It allows you to set up alert rules that trigger notifications when specific conditions, like VM stops, are met. Azure Monitor is a comprehensive monitoring service in Azure that provides real-time alerting and monitoring capabilities for Azure resources, making it the right choice for this scenario.

Options A, B, and D are incorrect because they do not offer real-time monitoring and alerting specifically for VM stop events. Azure Advisor provides optimization recommendations, Azure Service Health tracks Azure service status, and Azure Network Watcher focuses on network monitoring.

2. You have an Azure environment.

You need to create a new Azure virtual machine from a tablet that runs the Android operating system.
What are three possible solutions? Each correct answer presents a complete solution.

- A. Use Bash in Azure Cloud Shell.
- B. Use PowerShell in Azure Cloud Shell.
- C. Use the PowerApps portal.
- D. Use the Security & Compliance admin center.
- E. Use the Azure portal.

Answer: B & C

Explanation:

To create a new Azure virtual machine from a tablet running the Android operating system, you can use either of the following options:

• Use PowerShell in Azure Cloud Shell: Azure Cloud Shell supports PowerShell, allowing you to manage Azure resources, including virtual machines, from a tablet with a web browser.

• Use the Azure portal: The Azure portal is a web-based interface accessible from tablets, and it allows you to easily create a new Azure virtual machine without any additional installations.

Both options provide convenient and effective ways to create an Azure virtual machine using a tablet.

3. Which service provides serverless computing in Azure?

- A. Azure Virtual Machines
- B. Azure Functions
- C. Azure storage account
- D. Azure dedicated hosts

Answer: A

Explanation:

Azure Functions is the service in Microsoft Azure that provides serverless computing capabilities. With Azure Functions, you can write and deploy event-driven functions that automatically scale based on demand. These functions are small pieces of code that execute in response to various triggers, such as HTTP requests, timers, or messages from Azure services.

The serverless nature of Azure Functions means that you don't need to worry about managing servers or infrastructure. You only pay for the actual execution time of your functions, making it a cost-efficient solution for event-driven workloads and microservices architectures. Azure Functions allows developers to focus on writing code and building applications without the overhead of server management.

4. Your Azure environment contains multiple Azure virtual machines. You need to ensure that a virtual machine named VM1 is accessible from the Internet over HTTP.
What are two possible solutions? Each correct answer presents a complete solution.

- A. Modify an Azure Traffic Manager profile
- B. Modify a network security group (NSG)
- C. Modify a DDoS protection plan
- D. Modify an Azure firewall

Answer: B & D

Explanation:

B. Modify a network security group (NSG): A Network Security Group is a fundamental networking resource in Azure that acts as a virtual firewall for controlling inbound and outbound traffic to Azure resources, including virtual machines. To make VM1 accessible from the Internet over HTTP, you can modify the NSG associated with VM1 to allow incoming traffic on port 80 (HTTP). This will enable HTTP traffic to reach VM1 from the Internet.

D. Modify an Azure firewall: Azure Firewall is a cloud-native network security service that provides a fully stateful firewall as a service. It allows you to control outbound and inbound traffic to Azure resources. To make VM1 accessible from the Internet over HTTP, you can modify the Azure Firewall rules to allow incoming HTTP traffic (port 80) to reach VM1.

5. What can you use to identify underutilized or unused Azure virtual machines?

- A. Azure Advisor
- B. Azure Cost Management + Billing
- C. Azure reservations
- D. Azure Policy

Answer: A

Explanation:

Azure Advisor is a service in Microsoft Azure that provides personalized and actionable recommendations to help optimize your Azure resources and configurations. It helps you identify underutilized or unused Azure virtual machines by analysing usage patterns, performance metrics, and other telemetry data.

When you use Azure Advisor, it examines your Azure environment and provides insights into various aspects, including virtual machine usage. It can suggest resizing or deallocating virtual machines that are not being fully utilized, helping you optimize costs and improve overall efficiency.

6. You have an Azure environment that contains multiple Azure virtual machines.
You plan to implement a solution that enables the client computers on your on-premises network to communicate to the Azure virtual machines.
You need to recommend which Azure resources must be created for the planned solution.
Which two Azure resources should you include in the recommendation?

- A. A virtual network gateway
- B. A load balancer
- C. An application gateway
- D. A virtual network
- E. A gateway subnet

Answer: A & D

Explanation:

A. A virtual network gateway: To enable communication between your on-premises network and Azure virtual machines, you need to establish a secure and private connection. This can be achieved by creating a Virtual Network Gateway. The Virtual Network Gateway acts as a bridge between your on-premises network and the virtual network in Azure. It allows you to set up a Site-to-Site VPN or ExpressRoute connection, enabling secure and encrypted communication.

D. A virtual network: You need to have a Virtual Network in Azure to host your Azure virtual machines. The Virtual Network provides the isolated network environment where you deploy your resources, including virtual machines. It allows you to define the IP address space, subnets, and network security rules to control the traffic flow within the virtual network.

7. You attempt to create several managed Microsoft SQL Server instances in an Azure environment and receive a message that you must increase your Azure subscription limits.
What should you do to increase the limits?

- A. Create a service health alert
- B. Upgrade your support plan
- C. Modify an Azure policy
- D. Create a new support request

Answer: D

Explanation:

To increase your Azure subscription limits, you need to create a new support request with Microsoft Azure support. Azure subscription limits are set by default, and if you require higher limits for specific resources or services, you can request an increase through the Azure support portal.

By creating a new support request, you can specify the limits you need to increase, and Azure support will review your request and take appropriate action based on your requirements.

8. You plan 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?

- A. an Azure SQL database
- B. a virtual machine data disk
- C. a File service in a storage account
- D. a Blob service in a storage account

Answer: C

Explanation:

To create a storage solution for mapping a network drive from several computers running Windows 10 to Azure Storage, you need to use the Azure File service. Azure File Storage provides a fully managed file share that can be accessed using the standard SMB (Server Message Block) protocol. It allows you to create file shares in the cloud and mount them as network drives on Windows computers.

9. Your company plans to start using Azure and will migrate all its network resources to Azure.
You need to start the planning process by exploring Azure.
What should you create first?

- A. A subscription
- B. A resource group
- C. A virtual network
- D. A management group

Answer: A

Explanation:

When starting to explore Azure and planning to migrate network resources to Azure, the first step is to create an Azure subscription. An Azure subscription is a logical container used to provision and manage Azure resources. It is linked to a billing account and defines the ownership boundaries for resources within it.

After creating an Azure subscription, you can proceed with other steps like creating resource groups to organize resources, setting up virtual networks, and implementing management groups for governance and control. However, creating an Azure subscription is the foundational step to access and use Azure services and resources.

10. Which Azure service should you use to collect events from multiple resources into a centralized repository?

- A. Azure Event Hubs
- B. Azure Analysis Services
- C. Azure Monitor
- D. Azure Stream Analytics

Answer: A

Explanation:

Azure Event Hubs is the Azure service used for collecting and ingesting events from multiple sources into a centralized repository. It is a fully managed, scalable event streaming platform that can handle massive amounts of event data in real time.

With Azure Event Hubs, you can collect data from various sources, such as applications, devices, and servers, and then process and analyze this data using other Azure services like Azure Stream Analytics, Azure Functions, or Azure Logic Apps.

11. Your company plans to deploy an Artificial Intelligence (AI) solution in Azure.
What should the company use to build, test, and deploy predictive analytics solutions?

- A. Azure Logic Apps
- B. Azure Machine Learning Designer
- C. Azure Batch
- D. Azure Cosmos DB

Answer: B

Explanation:

To build, test, and deploy predictive analytics solutions in Azure, the company should use Azure Machine Learning Designer. Azure Machine Learning Designer is a drag-and-drop tool that allows users to create machine learning models without writing code. It provides a visual interface for building, training, and deploying machine learning models.

With Azure Machine Learning Designer, you can connect data sources, preprocess data, choose algorithms, and evaluate model performance, all within a user-friendly graphical interface. Once the model is ready, you can deploy it as a web service to make predictions and integrate it into your AI solution.

12. Your company plans to deploy several million sensors that will upload data to Azure.
You need to identify which Azure resources must be created to support the planned solution.
Which two Azure resources should you identify? Each correct answer presents part of the solution.

- A. Azure Data Lake
- B. Azure Queue storage
- C. Azure File Storage
- D. Azure IoT Hub
- E. Azure Notification Hubs

Answer: B & D

Explanation:

B. Azure Queue storage: Azure Queue storage is a service for storing and retrieving large numbers of messages. In the planned solution, Azure Queue storage can be used to handle the data uploads from the several million sensors. Each sensor can send data to Azure Queue storage, where the data is stored temporarily until it can be processed by other Azure services or applications.

D. Azure IoT Hub: Azure IoT Hub is a managed service that acts as the central hub for communication, management, and monitoring of IoT devices. It provides bi-directional communication between the IoT devices (sensors in this case) and the back-end Azure services. Azure IoT Hub can handle the massive scale of sensor data ingestion and route the data to various Azure services for processing, storage, and analysis.

13. You have an on-premises application that sends email notifications automatically based on a rule.
You plan to migrate the application to Azure.
You need to recommend a serverless computing solution for the application.
What should you include in the recommendation?

- A. A web app
- B. A server image in Azure Marketplace
- C. A logic app
- D. An API app

Answer: C

Explanation:

For the on-premises application that sends email notifications automatically based on a rule, the recommended serverless computing solution in Azure is a logic app. Azure Logic Apps is a serverless platform that allows you to automate workflows and integrate different systems and services.

With Azure Logic Apps, you can easily create workflows that respond to events, such as receiving data or a trigger from your on-premises application. The logic app can then send

email notifications automatically based on the predefined rules or conditions you configure within the workflow.

14. Which Azure service provides a set of version control tools to manage code?

- A. Azure Repos
- B. Azure DevTest Labs
- C. Azure Storage
- D. Azure Cosmos DB

Answer: A

Explanation:

Azure Repos is the Azure service that provides a set of version control tools to manage code. It is a version control system that supports both Git and Team Foundation Version Control (TFVC). Azure Repos is commonly used for source code management, allowing developers to collaborate on projects, track changes, and manage different versions of their code.

Using Azure Repos, developers can create and manage Git repositories or TFVC repositories directly in Azure DevOps or integrate with other Git clients to work with code locally. It offers features like pull requests, branching, merging, code reviews, and history tracking, making it an essential tool for software development and collaboration in Azure.

15. A team of developers at your company plans to deploy, and then remove, 50 customized virtual machines each week. Thirty of the virtual machines run Windows
Server 2016 and 20 of the virtual machines run Ubuntu Linux.
You need to recommend which Azure service will minimize the administrative effort required to deploy and remove the virtual machines.
What should you recommend?

- A. Azure Reserved Virtual Machines (VM) Instances
- B. Azure virtual machine scale sets
- C. Azure DevTest Labs
- D. Microsoft Managed Desktop

Answer: C

Explanation:

DevTest Labs is the recommended Azure service to minimize administrative effort for deploying and removing virtual machines in this scenario.

Azure DevTest Labs provides a fast and easy way to create, manage, and configure virtual machines for development and testing purposes. With DevTest Labs, you can create a base set of custom virtual machine images that meet your team's requirements. These images can be pre-configured with the necessary tools and software for your development and testing workloads.

16. What is the most severe failure from which an Azure Availability Zone can be used to protect access to Azure service?

- A. A physical server failure
- B. An Azure region failure
- C. A storage failure
- D. An Azure data center failure

Answer: D

Explanation:

An Azure Availability Zone is designed to protect access to Azure services from an Azure data center failure. Availability Zones are unique physical locations within an Azure region, each with its own power source, networking, and cooling, to ensure that they are isolated from failures in other zones.

By deploying resources such as virtual machines, storage, and databases across multiple Availability Zones, you can achieve high availability and fault tolerance. In the event of a data center failure in one Availability Zone, services and resources can automatically failover to another zone within the same region, ensuring continuity of service.

17. You need to purchase a third-party virtual security appliance that you will deploy to an Azure subscription.
What should you use?

- A. Azure subscriptions
- B. Azure Security Center
- C. Azure Marketplace
- D. Microsoft Store

Answer: C

Explanation:

Azure Marketplace is the place where you can find and purchase various third-party virtual appliances, including virtual security appliances, which are certified to run on Azure. It offers a wide range of solutions provided by different vendors, making it easy to discover and deploy the virtual appliances you need to enhance the security and functionality of your Azure resources.

By using Azure Marketplace, you can search for the specific virtual security appliance you require, review its details, and then initiate the purchase and deployment process directly from the Azure portal. This allows you to quickly and seamlessly add third-party security solutions to your Azure environment.

18. You plan to deploy several Azure virtual machines.
You need to ensure that the services running on the virtual machines remain available if a single data center fails.
What are two possible solutions?

- A. Deploy the virtual machines to two or more availability zones.
- B. Deploy the virtual machines to two or more resource groups.
- C. Deploy the virtual machines to a scale set.
- D. Deploy the virtual machines to two or more regions.

Answer: A & D

Explanation

A. Deploy the virtual machines to two or more availability zones: Availability Zones are unique physical locations within an Azure region, each with its own power source, networking, and cooling. By deploying virtual machines to different availability zones within the same region, you ensure that the services running on these virtual machines remain available even if a single data center or availability zone fails. Azure will automatically distribute the virtual machines across different availability zones, providing redundancy and fault tolerance.

D. Deploy the virtual machines to two or more regions: Azure regions are separate geographical locations, each containing multiple data centers. By deploying virtual machines to different regions, you achieve high availability and disaster recovery capabilities. If a single region becomes unavailable due to a catastrophic event, you can still access your services and data from the other regions where the virtual machines are deployed.

19. You plan to implement an Azure database solution.
You need to implement a database solution that meets the following requirements:

- **Can add data concurrently from multiple regions**
- **Can store JSON documents**

Which database service should you deploy?

Answer – Azure Cosmos DB

Explanation:

Azure Cosmos DB is a globally distributed, multi-model database service provided by Microsoft. It is designed to scale horizontally and handle large volumes of data with low latency across multiple regions. With Cosmos DB, you can choose from different consistency levels to meet your specific application needs and ensure data availability and responsiveness.

Cosmos DB is a NoSQL database that supports multiple data models, including document data model, key-value, graph, column-family, and more. The document data model is ideal for storing and querying JSON documents as it provides schema flexibility, allowing you to store varying data structures within the same collection.

By deploying Azure Cosmos DB, you can achieve global distribution of data, enabling you to add data concurrently from multiple regions while ensuring.

20. You have 50 virtual machines hosted on-premises and 50 virtual machines hosted in Azure. The on-premises virtual machines and the Azure virtual machines connect to each other.
Which type of cloud model is this?

- **A.** Hybrid
- **B.** Private
- **C.** Public
- **D.** None of above

Explanation:

The scenario described, where you have 50 virtual machines hosted on-premises and 50 virtual machines hosted in Azure, with the ability for them to connect to each other, represents a hybrid cloud model.

A hybrid cloud model is a combination of both on-premises infrastructure and cloud-based services, allowing organizations to extend their existing infrastructure to the cloud. In this case, the on-premises virtual machines form the private cloud component, and the virtual machines hosted in Azure represent the public cloud component.

21. Your company plans to deploy several custom applications to Azure. The applications will provide invoicing services to the customers of the company. Each application will have several prerequisite applications and services installed.
You need to recommend a cloud deployment solution for all the applications.
What should you recommend?

- **A.** Software as a Service (SaaS)
- **B.** Platform as a Service (PaaS)
- **C.** Infrastructure as a Service (IaaS)
- **D.** None of above

Explanation:

Platform as a Service (PaaS) is the most suitable cloud deployment solution for the scenario described. PaaS provides a platform and environment for developers to build, deploy, and manage applications without the complexity of managing the underlying infrastructure.

In this case, the custom applications that provide invoicing services can be developed and deployed on a PaaS offering, where the platform will handle the underlying infrastructure, including servers, storage, and networking. This allows the development team to focus on building and maintaining the applications, while the cloud provider manages the platform and runtime environment.

22. Your company has virtual machines (VMs) hosted in Microsoft Azure. The VMs are located in a single Azure virtual network named VNet1. The company has users that work remotely. The remote workers require access to the VMs on VNet1. You need to provide access for the remote workers. What should you do?

- A. Configure a Site-to-Site (S2S) VPN.
- B. Configure a VNet-toVNet VPN.
- C. Configure a Point-to-Site (P2S) VPN.
- D. Configure DirectAccess on a Windows Server 2012 server VM.
- E. Configure a Multi-Site VPN

Answer: C

Explanation:

To provide access for remote workers who need to connect to the virtual machines (VMs) on VNet1, you should configure a Point-to-Site (P2S) VPN. Point-to-Site VPN enables individual remote clients to securely connect to an Azure virtual network over the public internet. This allows remote workers to access resources on VNet1 as if they were directly connected to the virtual network.

23. You have an on-premises network that contains several servers.
You plan to migrate all the servers to Azure.
You need to recommend a solution to ensure that some of the servers are available if a single Azure data center goes offline for an extended period. What should you include in the recommendation?

- A. Fault tolerance
- B. elasticity
- C. scalability
- D. low latency

Answer: A

Explanation:

To ensure that some of the servers remain available in Azure even if a single Azure data center goes offline for an extended period, you should include fault tolerance in the recommendation.

Fault tolerance refers to the ability of a system to continue operating properly in the event of a failure. In the context of Azure, fault tolerance involves designing and configuring your resources in a way that allows them to withstand failures at the infrastructure level, such as the failure of a data center or hardware component.

24. Your company hosts an accounting application named App1 that is used by all the customers of the company.
App1 has low usage during the first three weeks of each month and very high usage during the last week of each month.
Which benefit of Azure Cloud Services supports cost management for this type of usage pattern?

- A. high availability
- B. high latency
- C. Elasticity
- D. load balancing

Answer: C

Explanation:

Elasticity is the benefit of Azure Cloud Services that supports cost management for applications with varying usage patterns. In the given scenario, the accounting application App1 experiences low usage during the first three weeks of each month and very high usage during the last week of each month.

With elasticity, you can automatically scale the resources allocated to the application based on its demand. During the low usage periods, you can scale down the resources to save costs, and during the high usage period, you can scale up to accommodate the increased demand. This dynamic scaling ensures that you only pay for the resources you actually need, reducing costs during low usage and providing sufficient resources during peak times without overprovisioning.

25. You have 1,000 virtual machines hosted on the Hyper-V hosts in a data center.
You plan to migrate all the virtual machines to an Azure pay-as-you-go subscription.
You need to identify which expenditure model to use for the planned Azure solution.
Which expenditure model should you identify?

- A. operational
- B. elastic
- C. capital
- D. scalable

Answer: A

Explanation:

For the planned Azure solution of migrating 1,000 virtual machines to an Azure pay-as-you-go subscription, the appropriate expenditure model to use is operational.

An operational expenditure model, also known as OpEx, involves paying for services and resources on a recurring basis, typically on a monthly or annual basis. In this model, you pay only for the resources you consume and use, without any upfront costs. This aligns well with the pay-as-you-go subscription in Azure, where you are billed based on your actual usage.

In this section, you will be provided with a problem statement and a solution. Establish if the solution satisfies the requirements (Go through the solutions carefully)

26. Your company is planning to migrate all their virtual machines to an Azure pay-as-you-go subscription. The virtual machines are currently hosted on the Hyper-V hosts in a data center.
You are required to make sure that the intended Azure solution uses the correct expenditure model.

Solution: You should recommend the use of the operational expenditure model.
Does the solution meet the goal?

Yes

27. Your company is planning to migrate all their virtual machines to an Azure pay-as-you-go subscription. The virtual machines are currently hosted on the Hyper-V hosts in a data center.
You are required to make sure that the intended Azure solution uses the correct expenditure model.

Solution: You should recommend the use of the scalable expenditure model.
Does the solution meet the goal?

No

28. You are required to deploy an Artificial Intelligence (AI) solution in Azure.
You want to make sure that you are able to build, test, and deploy predictive analytics for the solution.

Solution: You should make use of Azure Cosmos DB.
Does the solution meet the goal?

No

29. You are required to deploy an Artificial Intelligence (AI) solution in Azure.
You want to make sure that you are able to build, test, and deploy predictive analytics for the solution.

Solution: You should make use of Azure Machine Learning Studio.
Does the solution meet the goal?

Yes

30. Your company's developers intend to deploy a large number of custom virtual machines on a weekly basis. They will also be removing these virtual machines during the same week it was deployed. Sixty percent of the virtual machines have Windows Server 2016 installed, while the other forty percent has Ubuntu Linux installed.
You are required to make sure that the administrative effort, needed for this process, is reduced by employing a suitable Azure service.

Solution: You recommend the use of Azure DevTest Labs.
Does the solution meet the goal?

Yes

31. Your company's developers intend to deploy a large number of custom virtual machines on a weekly basis. They will also be removing these virtual machines during the same week it was deployed. Sixty percent of the virtual machines have Windows Server 2016 installed, while the other forty percent have Ubuntu Linux installed.
You are required to make sure that the administrative effort, needed for this process, is reduced by employing a suitable Azure service.

Solution: You recommend the use of Azure Reserved Virtual Machines (VM) Instances.
Does the solution meet the goal?

No

32. You are planning a strategy to deploy numerous web servers and database servers to Azure.
This strategy should allow for connection types between the web servers and database servers to be controlled.

Solution: You include network security groups (NSGs) in your strategy.
Does the solution meet the goal?

Yes

33. You are planning a strategy to deploy numerous web servers and database servers to Azure.
This strategy should allow for connection types between the web servers and database servers to be controlled.

Solution: You include a local network gateway in your strategy.
Does the solution meet the goal?

No

34. You are tasked with deploying Azure virtual machines for your company.

You need to make use of the appropriate cloud deployment solution.

Solution: You should make use of Infrastructure as a Service (IaaS).
Does the solution meet the goal?

Yes

35. You are tasked with deploying Azure virtual machines for your company.
You need to make use of the appropriate cloud deployment solution.

Solution: You should make use of Platform as a Service (PaaS).
Does the solution meet the goal?

No

36. You are tasked with deploying Azure virtual machines for your company.
You need to make use of the appropriate cloud deployment solution.

Solution: You should make use of Software as a Service (SaaS).
Does the solution meet the goal?

No

37. You plan to deploy several Azure virtual machines.
You need to ensure that the services running on the virtual machines are available if a single data center fails.

Solution: You deploy the virtual machines to two or more availability zones.
Does this meet the goal?

Yes

38. You plan to deploy several Azure virtual machines.
You need to ensure that the services running on the virtual machines are available if a single data center fails.

Solution: You deploy the virtual machines to two or more resource groups.
Does this meet the goal?

No

39. You plan to deploy several Azure virtual machines.
You need to ensure that the services running on the virtual machines are available if a single data center fails.

Solution: You deploy the virtual machines to a scale set.
Does this meet the goal?

No

40. You plan to deploy several Azure virtual machines.
You need to ensure that the services running on the virtual machines are available if a single data center fails.

Solution: You deploy the virtual machines to two or more regions.
Does this meet the goal?

Yes

41. An Azure administrator plans to run a PowerShell script that creates Azure resources.
You need to recommend which computer configuration to use to run the script.

Solution: Run the script from a computer that runs Linux and has the Azure CLI tools installed.
Does this meet the goal?

No

42. You have an Azure subscription named Subscription1. You sign in to the Azure portal and create a resource group named RG1.
From Azure documentation, you have the following command that creates a virtual machine named VM1. az vm create --resource-group RG1 --name VM1 --image UbuntuLTS --generate-ssh-keys
You need to create VM1 in Subscription1 by using the command.

Solution: From the Azure portal, launch Azure Cloud Shell and select PowerShell. Run the command in Cloud Shell.
Does this meet the goal?

Yes

43. An Azure administrator plans to run a PowerShell script that creates Azure resources.
You need to recommend which computer configuration to use to run the script.

Solution: Run the script from a computer that runs Chrome OS and uses Azure Cloud Shell.
Does this meet the goal?

Yes

44. You have an Azure subscription named Subscription1. You sign in to the Azure portal and create a resource group named RG1.
From Azure documentation, you have the following command that creates a virtual machine named VM1. az vm create --resource-group RG1 --name VM1 --image UbuntuLTS
--generate-ssh-keys
You need to create VM1 in Subscription1 by using the command.

Solution: From a computer that runs Windows 10, install Azure CLI. From a command prompt, sign in to Azure and then run the command.
Does this meet the goal?

Yes

45. You have an Azure environment. You need to create a new Azure virtual machine from a tablet that runs the Android operating system.

Solution: You use PowerShell in Azure Cloud Shell.
Does this meet the goal?

Yes

46. You have an Azure environment. You need to create a new Azure virtual machine from a tablet that runs the Android operating system.

Solution: You use the PowerApps portal.
Does this meet the goal?

No

47. Your company plans to migrate to Azure.
The company has several departments. All the Azure resources used by each department will be managed by a department administrator.
What are two possible techniques to segment Azure for the departments?
Each correct answer presents a complete solution.

- A. Multiple subscriptions
- B. Multiple Azure Active Directory (Azure AD) directories
- C. Multiple regions
- D. Multiple resource groups

Answer: A & D

Explanation:

A. Multiple subscriptions: Azure allows you to create multiple subscriptions within an Azure tenant. Each subscription acts as a separate billing unit and can be used to isolate resources, access control, and management. By using multiple subscriptions, you can

segregate Azure resources for different departments, allowing each department to have its own isolated environment and separate billing.

D. Multiple resource groups: Within each Azure subscription, you can create multiple resource groups. Resource groups are logical containers that hold related Azure resources for management.

48. You plan to deploy a website to Azure. The website will be accessed by users worldwide and will host large video files.
You need to recommend which Azure feature must be used to provide the best video playback experience.
What should you recommend?

- A. An application gateway
- B. An Azure ExpressRoute circuit
- C. A content delivery network (CDN)
- D. An Azure Traffic Manager profile

Answer: C

Explanation:

To provide the best video playback experience for users worldwide and efficiently serve large video files, you should use a content delivery network (CDN). A CDN is a network of servers distributed globally that caches and delivers content, including video files, from the server closest to the user's location. This reduces latency and ensures faster delivery of video content to users, resulting in a better video playback experience.

By using a CDN, you can optimize the delivery of large video files, reduce the load on your website's origin server, and improve the overall performance and scalability of the website for users across different regions. Azure CDN is a fully-managed service that can be easily integrated with your Azure resources, including websites, to deliver content with high availability and low latency to users worldwide.

49. What does a customer provide in a software-as-a-service (SaaS) model?

- A. Application data
- B. data storage
- C. compute resources
- D. application software

Answer: A

Explanation:

In a Software as a Service (SaaS) model, the customer provides application data. SaaS is a cloud computing service model where a third-party provider hosts and delivers software applications over the Internet. The customers access and use the software through a web browser, without the need to install or maintain the software on their own devices or infrastructure.

The SaaS provider is responsible for providing and maintaining the application software, data storage, and compute resources required to run the software. The customer, in turn, uses the software to manage and store their own application data within the SaaS application hosted by the provider.

50. What is the first stage in the Microsoft Cloud Adoption Framework for Azure?

- A. Adopt the cloud.
- B. Make a plan.
- C. Ready your organization.
- D. Define your strategy.

Answer: D

51. What are the two benefits of cloud computing? Each correct answer presents a complete solution.

- A. enables the rapid provisioning of resources
- B. has increased administrative complexity
- C. has the same configuration options as on-premises
- D. shifts capital expenditures (CAPEX) to operating expenditures (OPEX)

Answer: A & D

Explanation:

A. enables the rapid provisioning of resources: Cloud computing allows users to quickly and easily provision resources such as virtual machines, storage, databases, and other services. This agility enables organizations to scale up or down based on demand, reducing the time and effort required to set up and manage infrastructure.

D. shifts capital expenditures (CAPEX) to operating expenditures (OPEX): With cloud computing, organizations no longer need to invest heavily in upfront capital expenditures to purchase and maintain hardware and infrastructure. Instead, they can pay for cloud services on a pay-as-you-go basis, converting the capital expenses into operational expenses, which can lead to cost savings and improved financial flexibility.

52. Which cloud computing benefit provides continuous user access to a cloud-based application with minimal downtime?

- A. Agility
- B. Scalability
- C. Elasticity
- D. High availability

Answer: D

Explanation:

High availability is the cloud computing benefit that provides continuous user access to a cloud-based application with minimal downtime. It ensures that the application or service is always accessible and operational, even in the event of hardware failures, software issues,

or other disruptions. High availability is achieved through redundancy, fault tolerance, and automatic failover mechanisms, which help minimize downtime and ensure that users can access the application or service without significant interruptions.

53. You need to be notified when Microsoft plans to perform maintenance that can affect the resources deployed to an Azure subscription.
What should you use?

- A. Azure Monitor
- B. Azure Service Health
- C. Azure Advisor
- D. Microsoft Trust Center

Answer: B

Explanation:

Azure Service Health is a service in Azure that provides personalized alerts and notifications about the health of Azure services in your subscriptions. It gives you visibility into the current and past health of your resources, including planned maintenance events, service issues, and other events that may impact the availability of your resources.

By using Azure Service Health, you can receive notifications about upcoming planned maintenance events, so you can prepare and mitigate any potential impact on your resources. This helps you stay informed and take necessary actions to ensure the continued availability and reliability of your services in Azure.

54. You plan to deploy a service to Azure virtual machines.
You need to ensure that the service will be available if a data center fails.
What should you use as part of the virtual machine deployment?

- A. Availability sets
- B. Proximity placement groups
- C. Host groups
- D. Availability zones

Answer: D

Explanation:

Availability zones are a high-availability offering in Azure that protects your applications and data from data center failures. Each availability zone is a physically separate data center within an Azure region, equipped with independent power, cooling, and networking. By deploying your virtual machines across multiple availability zones, you ensure that your application remains available even if one of the zones or data centers experiences an outage.

Using availability zones helps increase the fault tolerance of your application and ensures that it continues to run without interruption in the event of hardware failures, network issues, or even datacenter-level outages. It provides a higher level of resiliency compared to other options like availability sets, which are limited to within the same data center.

55. You need to manage containers.
Which two services can you use? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. Azure Virtual Desktop
- B. Azure virtual machines
- C. Azure Functions
- D. Azure Container Instances
- E. Azure Kubernetes Service (AKS)

Answer: D & E

Explanation:

D. Azure Container Instances (ACI): Azure Container Instances allow you to run containers on-demand without the need to manage underlying virtual machines. ACI is suitable for scenarios where you need to quickly deploy individual containers without managing the underlying infrastructure. It is best suited for short-lived tasks and microservices.

E. Azure Kubernetes Service (AKS): Azure Kubernetes Service is a managed Kubernetes container orchestration service. AKS allows you to deploy, scale, and manage containerized applications using Kubernetes. With AKS, you get a fully managed Kubernetes cluster that handles the underlying infrastructure for you, making it ideal for deploying, managing, and scaling containerized applications in a production environment.

Both ACI and AKS are part of Azure's container management offerings, but they serve different purposes. ACI is great for quick and simple container deployment, while AKS is more suitable for complex applications that require the full capabilities of Kubernetes orchestration.

True or false section based on the statements (Each correct answer gives 1 mark)

56. Azure provides flexibility between capital expenditure and operational expenditure

No

57. If you create two Azure VMs that use B2S size, each VM will always Cost the same

No

58. When an Azure VM is stopped you continue to pay storage costs associated with the VM

Yes

59. A Paas solution that hosts web apps on Azure provides full control of the OS that Hosts the application

No

60. Virtual machine - IaaS (Infrastructure as a service)

Yes

61. Azure SQL database - Paas (Platform as a service)

Yes

62. To achieve a hybrid cloud, a company must always migrate from a private cloud

No

63. A company can extend the capacity of its internal network by using the public cloud

Yes

64. In the public cloud only organizations have access to it

No

65. An Azure web app that requires an on-premises Microsoft SQL server is an example of a Hybrid cloud

Yes

66. For hybrid cloud is a mix of on-premises and public cloud

Yes

67. Public cloud requires no capital expenditure
Yes

68. Azure Cosmos DB is an example of a SaaS solution

No

Note: All Database related stuff are max PaaS solutions

Correct Answer - PaaS

69. You can create a resource group inside a resource group

No

70. An Azure VM can be in multiple resource groups

No

71. A resource group can contain resources from multiple Azure regions

Yes

72. Azure Cosmos DB is an example of PaaS

Yes

73. Part of a hybrid cloud is a public cloud

Yes

74. A private cloud must be disconnected from the internet

No

75. Two Azure subscriptions can be merged into a single subscription

No

Note: you can't merge different subscriptions but you can always have multiple subscriptions in an account

76. Each Azure subscription can have multiple owners

No

Note: Only one and you can transfer ownership

78. You can associate a network security group (NSG) to a virtual network subnet

Yes

79. You can associate a network security group (NSG) to a virtual network

No

80. You can associate a network security group (NSG) to a network Interface

Yes

81. You can create custom Azure roles to control access to resources

Yes

82. A user account can be assigned to multiple Azure roles

Yes

83. A resource group can have the owner role assigned to multiple users

No

84. You can create Group policies in the Azure Active Directory (Azure AD)

Yes

85. You can join Windows 1o devices to Azure Active Directory (Azure AD)

Yes

86. You can join Android devices to Azure Active Directory (Azure AD)

No

87. You can add an Azure resource manager template to Azure Blueprint

Yes

88. You can assign an Azure blueprint to a resource group

No

89. You can use Azure blueprints to grant permissions to a resource

Yes

90. An Azure resource can have multiple Delete locks

Yes

91. An Azure resource inherits locks from its resource groups

Yes

92. Trust centers are a part of the Azure security center

No

93. Trust centers can only be accessed by users who have an Azure subscription

No

94. Trust centers provide information about the Azure compliance offerings

Yes

95. You can use Azure policies to assign tags to resources

Yes

96. You can add multiple tags to the same Azure resource

Yes

97. A standard support plan is included in an Azure free account

No

98. By copying several GB of data from Azure to an on-premises network over a VPN additional data transfer costs are incurred

Yes

99. Azure active directory (Azure AD) provides single sign-on (SSO)

Yes

100. IOS devices can be registered in Azure active directory (Azure AD)

Yes