



Exam **AZ-900**

Title **Microsoft Azure Fundamentals Exam**

Version **17.0**

**Product
Type** **230(demo) Q&A with explanations**

Exam A

QUESTION 1
HOTSPOT

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A platform as a service (PaaS) solution that hosts web apps in Azure provides full control of the operating systems that host applications.	<input type="checkbox"/>	<input type="checkbox"/>
A platform as a service (PaaS) solution that hosts web apps in Azure provides the ability to scale the platform automatically.	<input type="checkbox"/>	<input type="checkbox"/>
A platform as a service (PaaS) solution that hosts web apps in Azure provides professional development services to continuously add features to custom applications.	<input type="checkbox"/>	<input type="checkbox"/>

Correct Answer:

Answer Area

Statements	Yes	No
A platform as a service (PaaS) solution that hosts web apps in Azure provides full control of the operating systems that host applications.	<input type="radio"/>	<input checked="" type="radio"/>
A platform as a service (PaaS) solution that hosts web apps in Azure provides the ability to scale the platform automatically.	<input checked="" type="radio"/>	<input type="radio"/>
A platform as a service (PaaS) solution that hosts web apps in Azure provides professional development services to continuously add features to custom applications.	<input checked="" type="radio"/>	<input type="radio"/>

Section: Describe Cloud Concepts Explanation

Explanation/Reference:

Explanation:

Box 1: No

A PaaS solution does not provide access to the operating system. The Azure Web Apps service provides an environment for you to host your web applications. Behind the scenes, the web apps are hosted on virtual machines running IIS. However, you have no direct access to the virtual machine, the operating system or IIS.

Box 2: Yes

A PaaS solution that hosts web apps in Azure does provide the ability to scale the platform automatically. This is known as autoscaling. Behind the scenes, the web apps are hosted on virtual machines running IIS. Autoscaling means adding more load balanced virtual machines to host the web apps.

Box 3: Yes

PaaS provides a framework that developers can build upon to develop or customize cloud-based applications. PaaS development tools can cut the time it takes to code new apps with pre-coded application components built into the platform, such as workflow, directory services, security features, search and so on.

References:

<https://azure.microsoft.com/en-gb/overview/what-is-paas/>

QUESTION 2 HOTSPOT

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Azure provides flexibility between capital expenditure (CapEx) and operational expenditure (OpEx).	<input type="radio"/>	<input type="radio"/>
If you create two Azure virtual machines that use the B2S size, each virtual machine will always generate the same monthly costs.	<input type="radio"/>	<input type="radio"/>
When an Azure virtual machine is stopped, you continue to pay storage costs associated to the virtual machine.	<input type="radio"/>	<input type="radio"/>

Correct Answer:

Answer Area

Statements	Yes	No
Azure provides flexibility between capital expenditure (CapEx) and operational expenditure (OpEx).	<input checked="" type="radio"/>	<input type="radio"/>
If you create two Azure virtual machines that use the B2S size, each virtual machine will always generate the same monthly costs.	<input type="radio"/>	<input checked="" type="radio"/>
When an Azure virtual machine is stopped, you continue to pay storage costs associated to the virtual machine.	<input checked="" type="radio"/>	<input type="radio"/>

Section: Describe Cloud Concepts Explanation

Explanation/Reference:

Explanation:

Box 1: Yes

Traditionally, IT expenses have been considered a Capital Expenditure (CapEx). Today, with the move to the cloud and the pay-as-you-go model, organizations have the ability to stretch their budgets and are shifting their IT CapEx costs to Operating Expenditures (OpEx) instead. This flexibility, in accounting terms, is now an option due to the "as a Service" model of purchasing software, cloud storage and other IT related resources.

Box 2: No

Two virtual machines using the same size could have different disk configurations. Therefore, the monthly costs could be different.

Box 3: Yes

When an Azure virtual machine is stopped, you don't pay for the virtual machine. However, you do still pay for the storage costs associated to the virtual machine. The most common storage costs are for the disks attached to the virtual machines. There are also other storage costs associated with a virtual machine such as storage for diagnostic data and virtual machine backups.

References:

<https://meritsolutions.com/capex-vs-opex-cloud-computing-blog/>

QUESTION 3

HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

When you are implementing a Software as a Service (SaaS) solution, you are responsible for

configuring high availability.
defining scalability rules.
installing the SaaS solution.
configuring the SaaS solution.

Correct Answer:

Answer Area

When you are implementing a Software as a Service (SaaS) solution, you are responsible for

configuring high availability.
defining scalability rules.
installing the SaaS solution.
configuring the SaaS solution.

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

When you are implementing a Software as a Service (SaaS) solution, you are responsible for configuring the SaaS solution. Everything else is managed by the cloud provider.

SaaS requires the least amount of management. The cloud provider is responsible for managing everything, and the end user just uses the software.

Software as a service (SaaS) allows users to connect to and use cloud-based apps over the Internet. Common examples are email, calendaring and office tools (such as Microsoft Office 365).

SaaS provides a complete software solution which you purchase on a pay-as-you-go basis from a cloud service provider. You rent the use of an app for your organization and your users connect to it over the Internet, usually with a web browser. All of the underlying infrastructure, middleware, app software and app data are located in the service provider's data center. The service provider manages the hardware and software and with the appropriate service agreement, will ensure the availability and the security of the app and your data as well.

Reference:

<https://azure.microsoft.com/en-in/overview/what-is-saas/>

<https://docs.microsoft.com/en-gb/learn/modules/principles-cloud-computing/5-types-of-cloud-services>

QUESTION 4

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

Correct Answer: A

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

Fault tolerance is the ability of a system to continue to function in the event of a failure of some of its components.

In this question, you could have servers that are replicated across datacenters.

Availability zones expand the level of control you have to maintain the availability of the applications and data on your VMs. Availability Zones are unique physical locations within an Azure region. Each zone is made up of one or more datacenters equipped with independent power, cooling, and networking. To ensure resiliency, there are a minimum of three separate zones in all enabled regions. The physical separation of Availability Zones within a region protects applications and data from datacenter failures.

With Availability Zones, Azure offers industry best 99.99% VM uptime SLA. By architecting your solutions to use replicated VMs in zones, you can protect your applications and data from the loss of a datacenter. If one zone is compromised, then replicated apps and data are instantly available in another zone.

References:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/manage-availability>

QUESTION 5

HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

An organization that hosts its infrastructure no longer requires a data center .

in a private cloud
in a hybrid cloud
in the public cloud
on a Hyper-V host

Correct Answer:

Answer Area

An organization that hosts its infrastructure

	▼
in a private cloud	
in a hybrid cloud	
in the public cloud	
on a Hyper-V host	

 no longer requires a data center.

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

A private cloud is hosted in your datacenter. Therefore, you cannot close your datacenter if you are using a private cloud.

A public cloud is hosted externally, for example, in Microsoft Azure. An organization that hosts its infrastructure in a public cloud can close its data center.

Public cloud is the most common deployment model. In this case, you have no local hardware to manage or keep up-to-date – everything runs on your cloud provider's hardware.

Microsoft Azure is an example of a public cloud provider.

In a private cloud, you create a cloud environment in your own datacenter and provide self-service access to compute resources to users in your organization. This offers a simulation of a public cloud to your users, but you remain completely responsible for the purchase and maintenance of the hardware and software services you provide.

Reference:

<https://docs.microsoft.com/en-gb/learn/modules/principles-cloud-computing/4-cloud-deployment-models>

QUESTION 6

What are two characteristics of the public cloud? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. dedicated hardware
- B. unsecured connections
- C. limited storage
- D. metered pricing
- E. self-service management

Correct Answer: DE

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

With the public cloud, you get pay-as-you-go pricing – you pay only for what you use, no CapEx costs. With the public cloud, you have self-service management. You are responsible for the deployment and configuration of the cloud resources such as virtual machines or web sites. The underlying hardware that hosts the cloud resources is managed by the cloud provider.

Incorrect Answers:

A: You don't have dedicated hardware. The underlying hardware is shared so you could have multiple

customers using cloud resources hosted on the same physical hardware.
B: Connections to the public cloud are secure.
C: Storage is not limited. You can have as much storage as you like.

References:

<https://docs.microsoft.com/en-gb/learn/modules/principles-cloud-computing/4-cloud-deployment-models>

QUESTION 7

HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

When planning to migrate a public website to Azure,
you must plan to

deploy a VPN.
pay monthly usage costs.
pay to transfer all the website data to Azure.
reduce the number of connections to the website.

Correct Answer:

Answer Area

When planning to migrate a public website to Azure,
you must plan to

deploy a VPN.
pay monthly usage costs.
pay to transfer all the website data to Azure.
reduce the number of connections to the website.

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

When planning to migrate a public website to Azure, you must plan to pay monthly usage costs. This is because Azure uses the pay-as-you-go model.

QUESTION 8

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company plans to migrate all its data and resources to Azure.

The company's migration plan states that only Platform as a Service (PaaS) solutions must be used in Azure.

You need to deploy an Azure environment that meets the company migration plan.

Solution: You create an Azure App Service and Azure SQL databases.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: A

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

Azure App Service and Azure SQL databases are examples of Azure PaaS solutions. Therefore, this solution does meet the goal.

QUESTION 9

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company plans to migrate all its data and resources to Azure.

The company's migration plan states that only Platform as a Service (PaaS) solutions must be used in Azure.

You need to deploy an Azure environment that meets the company migration plan.

Solution: You create an Azure App Service and Azure virtual machines that have Microsoft SQL Server installed.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

Azure App Service is a PaaS (Platform as a Service) service. However, Azure virtual machines are an IaaS (Infrastructure as a Service) service. Therefore, this solution does not meet the goal.

QUESTION 10

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company plans to migrate all its data and resources to Azure.

The company's migration plan states that only Platform as a Service (PaaS) solutions must be used in Azure.

You need to deploy an Azure environment that meets the company migration plan.

Solution: You create an Azure App Service and Azure Storage accounts.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

Azure App Service is a PaaS (Platform as a Service) service. However, Azure Storage accounts are an IaaS (Infrastructure as a Service) service. Therefore, this solution does not meet the goal.

QUESTION 11

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

Correct Answer: C

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

Elasticity in this case is the ability to provide additional compute resource when needed and reduce the compute resource when not needed to reduce costs. Autoscaling is an example of elasticity.

Elastic computing is the ability to quickly expand or decrease computer processing, memory and storage resources to meet changing demands without worrying about capacity planning and engineering for peak usage. Typically controlled by system monitoring tools, elastic computing matches the amount of resources allocated to the amount of resources actually needed without disrupting operations. With cloud elasticity, a company avoids paying for unused capacity or idle resources and doesn't have to worry about investing in the purchase or maintenance of additional resources and equipment.

References:

<https://azure.microsoft.com/en-gb/overview/what-is-elastic-computing/>

QUESTION 12

You plan to migrate a web application to Azure. The web application is accessed by external users.

You need to recommend a cloud deployment solution to minimize the amount of administrative effort used to manage the web application.

What should you include in the recommendation?

- A. Software as a Service (SaaS)
- B. Platform as a Service (PaaS)
- C. Infrastructure as a Service (IaaS)
- D. Database as a Service (DaaS)

Correct Answer: B

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

Azure App Service is a platform-as-a-service (PaaS) offering that lets you create web and mobile apps for any platform or device and connect to data anywhere, in the cloud or on-premises. App Service includes the web and mobile capabilities that were previously delivered separately as Azure Websites and Azure Mobile Services.

References:

<https://docs.microsoft.com/en-us/azure/security/fundamentals/paas-applications-using-app-services>

QUESTION 13

HOTSPOT

Which cloud deployment solution is used for Azure virtual machines and Azure SQL databases? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Azure virtual machines:

Infrastructure as a service (IaaS)
Platform as a service (PaaS)
Software as a service (SaaS)

Azure SQL databases:

Infrastructure as a service (IaaS)
Platform as a service (PaaS)
Software as a service (SaaS)

Correct Answer:

Answer Area

Azure virtual machines:

Azure SQL databases:

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

Box 1:

Azure virtual machines are Infrastructure as a Service (IaaS).

Infrastructure as a Service is the most flexible category of cloud services. It aims to give you complete control over the hardware that runs your application (IT infrastructure servers and virtual machines (VMs), storage, networks, and operating systems). Instead of buying hardware, with IaaS, you rent it.

Box 2:

Azure SQL databases are Platform as a Service (PaaS).

Azure SQL Database is a fully managed Platform as a Service (PaaS) Database Engine that handles most of the database management functions such as upgrading, patching, backups, and monitoring without user involvement. Azure SQL Database is always running on the latest stable version of SQL Server Database Engine and patched OS with 99.99% availability. PaaS capabilities that are built-in into Azure SQL database enable you to focus on the domain specific database administration and optimization activities that are critical for your business.

Reference:

<https://docs.microsoft.com/en-gb/learn/modules/principles-cloud-computing/5-types-of-cloud-services>

<https://docs.microsoft.com/en-us/azure/sql-database/sql-database-paas-index>

QUESTION 14

You have an on-premises network that contains 100 servers.

You need to recommend a solution that provides additional resources to your users. The solution must minimize capital and operational expenditure costs.

What should you include in the recommendation?

- A. a complete migration to the public cloud
- B. an additional data center
- C. a private cloud
- D. a hybrid cloud

Correct Answer: D

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

A hybrid cloud is a combination of a private cloud and a public cloud.

Capital expenditure is the spending of money up-front for infrastructure such as new servers.

With a hybrid cloud, you can continue to use the on-premises servers while adding new servers in the public cloud (Azure for example). Adding new servers in Azure minimizes the capital expenditure costs as you are not paying for new servers as you would if you deployed new server on-premises.

Incorrect Answers:

A: A complete migration of 100 servers to the public cloud would involve a lot of operational expenditure (the cost of migrating all the servers).

B: An additional data center would involve a lot of capital expenditure (the cost of the new infrastructure).

C: A private cloud is hosted on on-premises servers to this would involve a lot of capital expenditure (the cost of the new infrastructure to host the private cloud).

Reference:

<https://docs.microsoft.com/en-gb/learn/modules/principles-cloud-computing/4-cloud-deployment-models>

QUESTION 15

HOTSPOT

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
To achieve a hybrid cloud model, a company must always migrate from a private cloud model.	<input type="radio"/>	<input type="radio"/>
A company can extend the capacity of its internal network by using the public cloud.	<input type="radio"/>	<input type="radio"/>
In a public cloud model, only guest users at your company can access the resources in the cloud.	<input type="radio"/>	<input type="radio"/>

Correct Answer:

Answer Area

Statements	Yes	No
To achieve a hybrid cloud model, a company must always migrate from a private cloud model.	<input type="radio"/>	<input checked="" type="radio"/>
A company can extend the capacity of its internal network by using the public cloud.	<input checked="" type="radio"/>	<input type="radio"/>
In a public cloud model, only guest users at your company can access the resources in the cloud.	<input type="radio"/>	<input checked="" type="radio"/>

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

Box 1: No

It is not true that a company must always migrate from a private cloud model to implement a hybrid cloud. You could start with a public cloud and then combine that with an on-premise infrastructure to implement a hybrid cloud.

Box 2: Yes

A company can extend the capacity of its internal network by using the public cloud. This is very common. When you need more capacity, rather than pay out for new on-premises infrastructure, you can configure a cloud environment and connect your on-premises network to the cloud environment by using a VPN.

Box 3: No

It is not true that only guest users can access cloud resources. You can give anyone with an account in Azure Active Directory access to the cloud resources. There are many authentication scenarios but a common one is to replicate your on-premises Active Directory accounts to Azure Active Directory and provide access to the Azure Active Directory accounts. Another commonly used authentication method is 'Federation' where authentication for access to cloud resources is passed to another authentication provider such as an on-premises Active Directory.

<https://azure.microsoft.com/en-gb/overview/what-is-hybrid-cloud-computing/>

QUESTION 16

You plan to migrate several servers from an on-premises network to Azure.

What is an advantage of using a public cloud service for the servers over an on-premises network?

- A. The public cloud is owned by the public, **NOT** a private corporation
- B. The public cloud is a crowd-sourcing solution that provides corporations with the ability to enhance the cloud
- C. All public cloud resources can be freely accessed by every member of the public
- D. The public cloud is a shared entity whereby multiple corporations each use a portion of the resources in the cloud

Correct Answer: D

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

The public cloud is a shared entity whereby multiple corporations each use a portion of the resources in the cloud. The hardware resources (servers, infrastructure etc.) are managed by the cloud provider. Multiple companies create resources such as virtual machines and virtual networks on the hardware resources.

Incorrect Answers:

A: The public cloud is not owned by the public. In the case of Microsoft Azure, the cloud is owned by Microsoft.

B: The public cloud is a not crowd-sourcing solution. In the case of Microsoft Azure, the cloud is owned by Microsoft.

C: It is not true that public cloud resources can be freely accessed by every member of the public. You pay for a cloud subscription and create accounts for your users to access your cloud resources. No one can access your cloud resources until you create user accounts and provide the appropriate access permissions.

QUESTION 17

HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

Azure Site Recovery provides

	▼
fault tolerance	
disaster recovery	
elasticity	
high availability	

 for virtual machines.

Correct Answer:

Answer Area

Azure Site Recovery provides

	▼
fault tolerance	
disaster recovery	
elasticity	
high availability	

 for virtual machines.

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

Azure Site Recovery helps ensure business continuity by keeping business apps and workloads running during outages. Site Recovery replicates workloads running on physical and virtual machines (VMs) from a primary site to a secondary location.

Reference:

<https://docs.microsoft.com/en-us/azure/site-recovery/site-recovery-overview>

QUESTION 18

In which type of cloud model are all the hardware resources owned by a third-party and shared between multiple tenants?

- A. private
- B. hybrid
- C. public

Correct Answer: C

Section: Describe Cloud Concepts

Explanation

Explanation/Reference:

Explanation:

Microsoft Azure, Amazon Web Services and Google Cloud are three examples of public cloud services. Microsoft, Amazon and Google own the hardware. The tenants are the customers who use the public cloud services.

QUESTION 19

HOTSPOT

To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

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

hybrid
multi-vendor
private
public

Correct Answer:

Answer Area

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

hybrid
multi-vendor
private
public

**Section: Describe
Cloud Concepts
Explanation**

Explanation/Reference:

Reference:

<https://azure.microsoft.com/en-gb/overview/what-is-hybrid-cloud-computing/>