1. **Which of the following statements is not true about cloud computing?**

* **All cloud computing resources are usually limited to specific geographic regions.**
* IaaS, PaaS, and SaaS are examples of cloud computing service models.
* IaaS, PaaS, and SaaS are common cloud computing service models and are respectively infrastructure as a service, platform as a service, and software as a service.

1. **True or false: You need to purchase an Azure account before you can use any Azure resources.**

* **False**
* True

1. **True or false: In an IaaS environment, the cloud tenant is responsible for routine hardware maintenance.**
   * **True**
   * False
2. **Which of the following choices isn't a cloud computing category?**

* Platform-as-a-Service (PaaS)
* **Networking-as-a-Service (NaaS)**
* Infrastructure-as-a-Service (IaaS)
* Software-as-a-Service (SaaS)

1. **Which of the following options isn't a type of cloud computing?**

* Hybrid cloud
* Private cloud
* Public cloud
* **Distributed cloud**

1. **Which of the following choices isn't a benefit of using cloud services?**

* Scalability
* Disaster recovery
* **Geographic isolation**
* High availability

1. **Which of the following is a logical unit of Azure services that links to an Azure account?**

* Management group
* Resource group
* **Azure subscription**

1. **Which of the following is a fundamental element of the Azure platform?**

* Management group
* **Resource group**
* Azure subscription

1. **Which service provides a management layer that enables you to create, update, and delete resources in your Azure account.**

* Management group
* Resource group
* Azure subscription
* **Azure resource Manager**

1. **Which of the following statements is true?**

* **With Operating Expenses (OpEx), you are only responsible for the computing resources that you use.**
* With Operating Expenses (OpEx), you are responsible for purchasing and maintaining your computing resources.
* With Capital Expenses (CapEx), you are only responsible for the computing resources that you use.

1. **Tailwind Traders uses the LAMP stack for several of its websites. Which option would be ideal for migration?**

* **Azure Database for MySQL**
* Azure Cosmos DB
* Azure SQL Database
* Azure Database for PostgreSQL

1. **Which Azure compute resource can be deployed to manage a set of identical virtual machines?**

* Virtual machine availability sets
* **Virtual machine scale sets**
* Virtual machine availability zones

1. **Which of the following services should be used when the primary concern is to perform work in response to an event (often via a REST command) that needs a response in a few seconds?**

* **Azure Functions**
* Azure App Service
* Azure Container Instances

1. **Your company has a team of remote workers that need to use Windows-based software to develop your company's applications, but your team members are using various operating systems like MacOS, Linux, and Windows. Which Azure compute service would help resolve this scenario?**

* Azure App Service
* **Windows Virtual Desktop**
* Azure Container Instances

1. **What is the first step that you would take in order to share an image file as a blob in Azure Storage?**

* Create an Azure Storage container to store the image.
* Upload the image file and create a container.
* Use a Shared Access Signature (SAS) token to restrict access to the image.
* **Create an Azure Storage account.**

1. **Which Azure Storage option is better for storing data for backup and restore, disaster recovery, and archiving?**

* **Azure Blob Storage**
* Azure Files Storage
* Azure Disk Storage

1. **Tailwind Traders wants to create a secure communication tunnel between its branch offices. Which of the following technologies can't be used?**

* Point-to-site virtual private network
* **Implicit FTP over SSL**
* Azure ExpressRoute
* Site-to-site virtual private network

1. **Tailwind Traders wants to use Azure ExpressRoute to connect its on-premises network to the Microsoft cloud. Which of the following choices isn't an ExpressRoute model that Tailwind Traders can use?**

* **Site-to-site virtual private network**
* Any-to-any connection
* Point-to-point Ethernet connection
* CloudExchange colocation

1. **Which of the following options can you use to link virtual networks?**

* Network address translation
* Multi-chassis link aggregation
* Dynamic Host Control Protocol
* **Virtual network peering**

1. **Which of the following options isn't a benefit of ExpressRoute?**

* Redundant connectivity
* Consistent network throughput
* **Encrypted network communication**
* Access to Microsoft cloud services

1. **You need to predict future behavior based on previous actions. Which product option should you eliminate as a candidate?**

* Azure Machine Learning
* **Azure Bot Service**
* Azure Cognitive Services

1. **You need to predict future behavior based on previous actions. Which product option should you select as a candidate?**

* **Azure Machine Learning**
  + That's correct. Azure Machine Learning enables you to build models to predict the likelihood of a future result. It should not be eliminated as a candidate.
* Azure Bot Service
* Azure Cognitive Services

1. **You need to create a human-computer interface that uses natural language to answer customer questions. Which product option should you eliminate as a candidate?**

* **Azure Machine Learning**
* Azure Cognitive Services
* Azure Bot Service

1. **You need to create a human-computer interface that uses natural language to answer customer questions. Which product option should you select as a candidate?**

* Azure Machine Learning
* Azure Cognitive Services
* **Azure Bot Service**
  + That's correct. Azure Bot Service creates virtual agent solutions that utilize natural language. It should not be eliminated as a candidate.

1. **You need to identify the content of product images to automatically create alt tags for images formatted properly. Which production option is the best candidate?**

* Azure Machine Learning
* **Azure Cognitive Services**
* Azure Bot Service

1. **Which of the following choices would not be used to automate a CI/CD process?**

* Azure Pipelines
* GitHub Actions
* **Azure Boards**

1. **Which service could help you manage the VMs that your developers and testers need to ensure that your new app works across various operating systems?**

* **Azure DevTest Labs**
* Azure Test Labs
* Azure Repos

1. **Which service lacks features to assign individual developers tasks to work on?**

* Azure Boards
* GitHub
* **Azure Pipelines**

1. **You want to be alerted when new recommendations to improve your cloud environment are available. Which service will do this?**

* **Azure Advisor**
* Azure Monitor
* Azure Service Health

1. **Which service provides official outage root cause analyses (RCAs) for Azure incidents?**

* Azure Advisor
* Azure Monitor
* **Azure Service Health**

1. **Which service is a platform that powers Application Insights, monitoring for VMs, containers, and Kubernetes?**

* Azure Advisor
* **Azure Monitor**
* Azure Service Health

1. **As an administrator, you need to retrieve the IP address from a particular VM by using Bash. Which of the following tools should you use?**

* ARM templates
* Azure PowerShell
* The Azure portal
* **The Azure CLI**

1. **You're a developer who needs to set up your first VM to host a process that runs nightly. Which of the following tools is your best choice?**

* ARM templates
* Azure PowerShell
* **The Azure portal**
* The Azure CLI

1. **What is the best infrastructure-as-code option for quickly and reliably setting up your entire cloud infrastructure declaratively?**

* **ARM templates**
* Azure PowerShell
* The Azure portal
* The Azure CLI

1. **You need to process messages from a queue, parse them by using some existing imperative logic written in Java, and then send them to a third-party API. Which serverless option should you choose?**

* **Azure Functions**
* Azure Logic Apps

1. **You want to orchestrate a workflow by using APIs from several well-known services. Which is the best option for this scenario?**

* Azure Functions
* **Azure Logic Apps**

1. **Your team has limited experience with writing custom code, but it sees tremendous value in automating several important business processes. Which of the following options is your team's best option?**

* Azure Functions
* **Azure Logic Apps**

1. **A company wants to build a new voting kiosk for sales to governments around the world. Which IoT technologies should the company choose to ensure the highest degree of security?**

* IoT Hub
* IoT Central
* **Azure Sphere**

1. **A company wants to quickly manage its individual IoT devices by using a web-based user interface. Which IoT technology should it choose?**

* IoT Hub
* **IoT Central**
* Azure Sphere

1. **You want to send messages from the IoT device to the cloud and vice versa. Which IoT technology can send and receive messages?**

* **IoT Hub**
* IoT Central
* Azure Sphere

1. **How can Tailwind Traders enforce having only certain applications run on its VMs?**

* Connect your VMs to Microsoft Sentinel.
* **Create an application control rule in Microsoft Defender for Cloud.**
* Periodically run a script that lists the running processes on each VM. The IT manager can then shut down any applications that shouldn't be running.

1. **What's the easiest way for Tailwind Traders to combine security data from all of its monitoring tools into a single report that it can take action on?**

* **Collect security data in Microsoft Sentinel.**
* Build a custom tool that collects security data and displays a report through a web application.
* Look through each security log daily and email a summary to your team.

1. **Which is the best way for Tailwind Traders to safely store its certificates so that they're accessible to cloud VMs?**

* Place the certificates on a network share.
* Store them on a VM that's protected by a password.
* **Store the certificates in Azure Key Vault.**

1. **How can Tailwind Traders ensure that certain VM workloads are physically isolated from workloads being run by other Azure customers?**

* Configure the network to ensure that VMs on the same physical host are isolated.
* This is not possible. These workloads need to be run on-premises.
* **Run the VMs on Azure Dedicated Host.**

1. **An attacker can bring down your website by sending a large volume of network traffic to your servers. Which Azure service can help companies protect its App Service instance from this kind of attack?**

* Azure Firewall
* Network security groups
* **Azure DDoS Protection**

1. **What's the best way for companies to limit all outbound traffic from VMs to known hosts?**

* Configure Azure DDoS Protection to limit network access to trusted ports and hosts.
* **Create application rules in Azure Firewall.**
* Ensure that all running applications communicate with only trusted ports and hosts.

1. **How can companies most easily implement a deny by default policy so that VMs can't connect to each other?**

* **Allocate each VM on its own virtual network.**
* Create a network security group rule that prevents access from another VM on the same network.
* Configure Azure DDoS Protection to limit network access within the virtual network.

1. **How can the IT department ensure that employees at the company's retail stores can access company applications only from approved tablet devices?**

* SSO
* **Conditional Access**
* Multifactor authentication

1. **How can the IT department use biometric properties, such as facial recognition, to enable delivery drivers to prove their identities?**

* SSO
* Conditional Access
* **Multifactor authentication**

1. **How can the IT department reduce the number of times users must authenticate to access multiple applications?**

* **SSO**
* Conditional Access
* Multifactor authentication

1. **Which is the best way for companies to ensure that they only deploy cost-effective virtual machine SKU sizes?**

* **Create a policy in Azure Policy that specifies the allowed SKU sizes.**
* Periodically inspect the deployment manually to see which SKU sizes are used.
* Create an Azure RBAC role that defines the allowed virtual machine SKU sizes.

1. **Which is likely the best way for companies to identify which billing department each Azure resource belongs to?**

* Track resource usage in a spreadsheet.
* Split the deployment into separate Azure subscriptions, where each subscription belongs to its own billing department.
* **Apply a tag to each resource that includes the associated billing department.**

1. **Where can the company access details about the personal data Microsoft processes and how the company processes it, including for Cortana?**

* **Microsoft Privacy Statement**
* The Azure compliance documentation
* Microsoft compliance offerings

1. **Where can a legal team access information around how the Microsoft cloud helps them secure sensitive data and comply with applicable laws and regulations?**

* Microsoft Privacy Statement
* **Trust Center**
* Online Services Terms

1. **Where can the IT department find reference blueprints that it can apply directly to its Azure subscriptions?**

* Online Services Terms
* **Azure compliance documentation**
* Microsoft Privacy Statement

1. **Which is the best first step a team should take to compare the cost of running these environments on Azure versus in their datacenter?**

* They're just test environments. Spin them up and check the bill at the end of the month.
* Assume that running in the cloud costs about the same as running in the datacenter.
* **Run the Total Cost of Ownership Calculator.**

1. **What's the best way to ensure that a development team doesn't provision too many virtual machines at the same time?**

* nothing. Let the development team use what they need.
* **Apply spending limits to the development team's Azure subscription.**
* Verbally give the development lead a budget and hold them accountable for overages.

1. **Which is the most efficient way for a testing team to save costs on virtual machines on weekends, when testers are not at work?**

* Delete the virtual machines before the weekend and create a new set the following week.
* **Deallocate virtual machines when they're not in use.**
* Just let everything run. Azure bills you only for the CPU time that you use.

1. **Resources in the Dev and Test environments are each paid for by different departments. What's the best way to categorize costs by department?**

* **Apply a tag to each virtual machine that identifies the appropriate billing department.**
* Split the cost evenly between departments.
* Keep a spreadsheet that lists each team's resources.

1. **What's the SLA for Azure Maps in terms of guaranteed uptime?**

* 99 percent
* **99.9 percent**
* 99.99 percent

1. **What's the new composite SLA? Remember, the new SLA includes a third virtual machine and Azure Maps.**

* **99.58 percent**
* 99.78 percent
* 99.99 percent

1. **Adding a third virtual machine reduces the composite SLA. How can companies offset this reduction?**

* Increase the size of each virtual machine.
* **Deploy extra instances of the same virtual machines across the different availability zones in the same Azure region.**
* Do nothing. Using Azure Load Balancer increases the SLA for virtual machines.

1. **What approach might the company take in adding the augmented reality (AR) preview service to its architecture?**

* The Special Orders app is already in production. The company shouldn't look into the AR service until the service reaches general availability (GA).
* The Special Orders app is mainly for use by retail employees. The company can integrate the AR service now because potential downtime or failures aren't an important factor.
* **The development team can create a prototype version of the app that includes the AR service that it tests out with select retail employees.**

1. **What is meant by cloud computing?**

* **Delivery of computing services over the internet.**
* Setting up your own datacenter.
* Using the internet

1. **Which of the following is not a feature of Cloud computing?**

* Faster innovation
* **A limited pool of services**
* Speech recognition and other cognitive services

1. **Which of the following can be used to manage governance across multiple Azure subscriptions?**

* Azure initiatives
* **Management groups**
* Resource groups

1. **Which of the following is a logical unit of Azure services that links to an Azure account?**

* **Azure subscription**
* Management group
* Resource group
* Public cloud

1. **Which of the following features does not apply to resource groups?**

* Resources can be in only one resource group.
* Role-based access control can be applied to the resource group.
* **Resource groups can be nested.**

1. **Which of the following statements is a valid statement about an Azure subscription?**

* Using Azure doesn't require a subscription.
* **An Azure subscription is a logical unit of Azure services.**

1. **Which Azure compute resource can be deployed to manage a set of identical virtual machines?**

* **Virtual machine scale sets**
* Virtual machine availability sets
* Virtual machine availability zones

1. **Which of the following services should be used when the primary concern is to perform work in response to an event (often via a REST command) that needs a response in a few seconds?**

* **Azure Functions**
* Azure App Service
* Azure Container Instances

1. **Your company has a team of remote workers that need to use Windows-based software to develop your company's applications, but your team members are using various operating systems like macOS, Linux, and Windows. Which Azure compute service would help resolve this scenario?**

* Azure App Service
* **Azure Virtual Desktop**
* Azure Container Instances

1. **Which Azure Storage option is better for storing data for backup and restore, disaster recovery, and archiving?**

* Azure Files Storage
* Azure Disk Storage
* **Azure Blob Storage**

1. **our development team is interested in writing Graph-based applications that take advantage of the Gremlin API. Which option would be ideal for that scenario?**

* **Azure Cosmos DB**
  + That's correct. Azure Cosmos DB supports SQL, MongoDB, Cassandra, Tables, and Gremlin APIs.
* Azure SQL Database
* Azure Databricks
* Azure Database for PostgreSQL

1. **Tailwind Traders uses the LAMP stack for several of its websites. Which option would be ideal for migration?**

* Azure Cosmos DB
* **Azure Database for MySQL**
* Azure Database for PostgreSQL

1. **Tailwind Traders has millions of log entries that it wants to analyze. Which option would be ideal for analysis?**

* Azure Cosmos DB
* Azure SQL Database
* Azure Database for PostgreSQL
* **Azure Synapse Analytics**

1. **How can Tailwind Traders allow some users to control the virtual machines in each environment but prevent them from modifying networking and other resources in the same resource group or Azure subscription?**

* **Create a role assignment through Azure role-based access control (Azure RBAC).**
* Create a policy in Azure Policy that audits resource usage.
* Split the environment into separate resource groups.

1. **With services can create and use VMs in the cloud.**

* **Azure virtual Machines**
* Virtual machines Scale sets
* Container Instances
* Azure Kubernetes Service

1. **Which Azure compute resource that you can use to deploy and manage a set of identical VMs..**

* Azure virtual Machines
* **Virtual machines Scale sets**
* Container Instances
* Azure Kubernetes Service

1. **Which resource you create and manage a group of identical, load-balanced VMs.**

* Azure virtual Machines
* **Virtual machines Scale sets**
* Container Instances
* Azure Kubernetes Service

1. **Which resource** **allow you to centrally manage, configure, and update a large number of VMs in minutes to provide highly available applications...**

* Azure virtual Machines
* **Virtual machines Scale sets**
* Container Instances
* Azure Kubernetes Service

1. **resources that you can use to deploy and manage containers**

* Azure virtual Machines
* Virtual machines Scale sets
* **Container Instances**
* **Azure Kubernetes Service**

1. **Which is the only Windows client-based operating system that enables multiple concurrent users on a single VM**

* **Windows 10 Enterprise**
* Windows server 2016
* Windows 8
* Windows 7 Enterprise

1. **When you bring your Microsoft 365 license which two desktops can get at no cost**

* **Windows 10 Enterprise**
* **Windows 7 Enterprise**
* Windows server 2016
* Windows 8

1. **Which Service is a complete orchestration service for containers with distributed architectures and large volumes of containers?**

* Azure virtual Machines
* Virtual machines Scale sets
* Container Instances
* **Azure Kubernetes Service**

1. **Which is the Key component of serverless computing?**

* Azure virtual Machines
* Virtual machines Scale sets
* Container Instances
* **Functions**

1. **Your organization is planning to build a customized solution for uploading weather data to Azure using several million sensors. Which of the given service should the company use to connect, monitor, and control the sensors without managing the infrastructure?**

* **Azure IoT Hubs**
* Azure Virtual machines
* Azure Files
* Azure App Services

1. **Where can you obtain details about the personal data Microsoft processes, how Microsoft processes it, and for what purposes?**

* **Microsoft Privacy Statement**
* Compliance Manager
* Azure Service Health
* Microsoft Online Subscription Agreement

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_ offers real-time analytics and complex event-processing engine.**

* Azure Data Lake
* Azure Event Hub
* Azure Logic App
* **Azure Stream Analytics**

1. **A company needs to create around 50 customized Virtual Machines. Out of these 20 are Windows based Virtual machines which are identical and 30 are Ubuntu Machines again of identical configuration. Which of the following would help reduce the administrative effort required to deploy the machines?**

* **Azure virtual machine scale sets**
* Azure Reserved Virtual Machines (VM) Instances
* Azure DevTest Labs
* Microsoft Managed Desktop

1. **You are working in a company that plans to migrate their application to Azure. This application will be responsible to host the banking records for its users. You have been asked to suggest a security information event management (SIEM) and security orchestration automated response (SOAR) solution. Which of the following Azure service will mee the requirement?**

* Azure Security Center
* **Azure Sentinel**
* Azure Sphere
* Azure CycleCloud

1. **An organization plans to migrate its docker containers to Azure.You have been asked to suggest a solution that offers a set of version control tools to help developers manage the application code.Which amongst the following will you include in your recommendation?**

* **Azure Repos**
* Azure Pipelines
* Azure Monitor
* Azure Activity log

1. **Which Azure Storage option is better for storing data for backup and restore, disaster recovery, and archiving?**

* A - **Azure Blob Storage**
* B - Azure Files Storage
* C - Azure Disk Storage

1. **Which of the following describes a benefit of cloud services?**

* **Economies of scale**
* Fixed workloads
* Unpredictable costs
* **Elasticity**
* **Agility**

1. A company wants to create multiple data stores in Microsoft AZURE. They want to have storage layers that can be used to store data that is infrequently used. Which of the following storage tiers for Azure BLOB storage would be suitable for this type of requirement? Choose 2 answers from the options given below.

* Premium Storage
* Hot Storage
* **Cold Storage**
* **Archive Storage**
* **Hot** - Optimized for storing data that is accessed frequently.
* **Cool** - Optimized for storing data that is infrequently accessed and stored for at least 30 days.
* **Archive** - Optimized for storing data that is rarely accessed and stored for at least 180 days with flexible latency requirements (on the order of hours).
* While a blob is in the Archive tier, it can't be read or modified. To read or download a blob in the Archive tier, you must first rehydrate it to an online tier, either Hot or Cool. Data in the Archive tier can take up to 15 hours to rehydrate, depending on the priority you specify

1. The cloud deployment model that fits legacy applications with specialized mainframe hardware and newer shared applications is:

* **Hybrid cloud**

**Drag And Drop**

* **Azure App Services:** you can quickly build, deploy, and scale enterprise-grade web, mobile, and API apps running on any platform.
* **Functions:** are ideal when you're concerned only about the code running your service and not the underlying platform or infrastructure.
* **Virtual machine scale sets:** let you create and manage a group of identical, load-balanced VMs.
* **Azure Kubernetes Service:** is a complete orchestration service for containers with distributed architectures and large volumes of containers
* **Azure Batch:** enables large-scale parallel and high-performance computing (HPC) batch jobs with the ability to scale to tens, hundreds, or thousands of VMs.
* **WebJobs:** feature to run a program (.exe, Java, PHP, Python, or Node.js) or script (.cmd, .bat, PowerShell, or Bash) in the same context as a web app, API app, or mobile app.
* **WebJobs:** are often used to run background tasks as part of your application logic
* **Containers:** run multiple instances of an application on a single host machine
* **Host pools** : are collections of VMs with the same configuration assigned to multiple users.
* **Answer is Service bus:** Microsoft Azure Service Bus is a fully managed enterprise integration message broker.
  + A message is in binary format and can contain JSON, XML, or just text.

**True or false**

* You still need to configure, update, and maintain the software that runs on the VM**. – True**
* An organization can extend the capabilities of its own on-premises network by creating a virtual network in Azure and adding VMs to that virtual network. **– True**
* Logic apps are similar to functions. Both enable you to trigger logic based on an event. **–True**
* **Windows 10 Enterprise** multi-session, the only Windows client-based operating system that enables multiple concurrent users on a single VM **–True**
* Azure Virtual Desktop is available to you at no additional cost if you have an eligible Microsoft 365 license. **–True**
* Azure services in public preview can be managed only by using the Azure CLI **–False**
  + Azure services in public preview can be managed using the regular management tools: Azure Portal, Azure CLI and PowerShell.
* An Azure resource group contains multiple Azure subscriptions **– False**