CV0-003 Dumps

CompTIA Cloud+ Certification Exam

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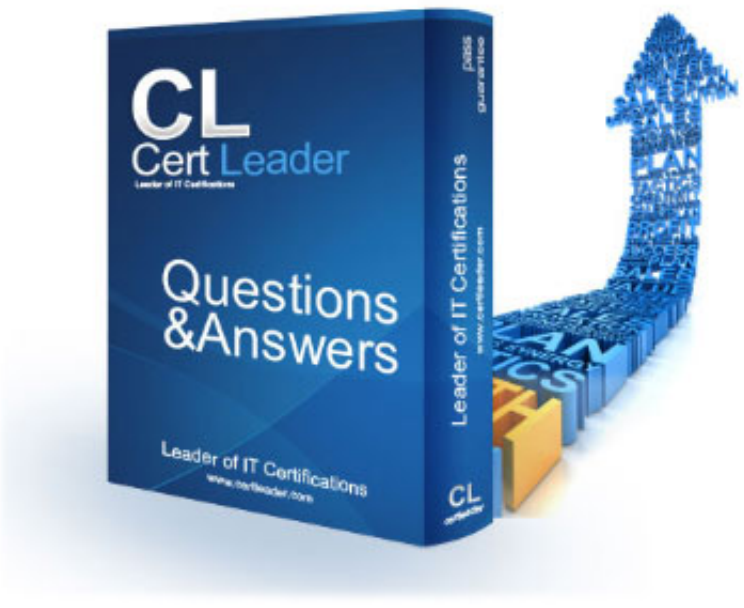


NEW QUESTION 1
- (Topic 1)
A systems administrator has migrated an internal application to a public cloud. The new web server is running under a TLS connection and has the same TLS certificate as the internal application that is deployed. However, the IT department reports that only internal users who are using new versions of the OSs are able to load the application home page.
Which of the following is the MOST likely cause of the issue?

A. The local firewall from older OSs is not allowing outbound connections
B. The local firewall from older OSs is not allowing inbound connections
C. The cloud web server is using a self-signed certificate that is not supported by older browsers
D. The cloud web server is using strong ciphers that are not supported by older browsers

Answer: D

Explanation:
Ciphers are algorithms or methods that are used to encrypt and decrypt data for secure communication. Strong ciphers are ciphers that use high-level encryption techniques and keys to provide stronger security and protection for data. The cloud web server is using strong ciphers that are not supported by older browsers is the most likely cause of the issue of only internal users who are using new versions of the OSs being able to load the application home page after the administrator configured a redirect from HTTP to HTTPS on the web server. Older browsers may not support the strong ciphers used by the cloud web server for HTTPS connections, which can result in a failure to establish a secure connection and load the application home page. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 2
- (Topic 1)
An organization is running a database application on a SATA disk, and a customer is experiencing slow performance most of the time.
Which of the following should be implemented to improve application performance?

A. Increase disk capacity
B. Increase the memory and network bandwidth
C. Upgrade the application
D. Upgrade the environment and use SSD drives

Answer: D

Explanation:
Upgrading the environment and using solid state drives (SSDs) can improve application performance for a database application that is running on a serial advanced technology attachment (SATA) disk and experiencing slow performance most of the time. Upgrading the environment can involve updating or replacing the hardware, software, or network components that support the application to enhance their functionality, capacity, or compatibility. Using SSDs can provide faster and more reliable data access and storage than SATA disks, as they use flash memory instead of spinning disks to store data. SSDs can also reduce latency, power consumption, and heat generation. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 3
- (Topic 1)
A cloud administrator is reviewing the authentication and authorization mechanism implemented within the cloud environment. Upon review, the administrator discovers the sales group is part of the finance group, and the sales team members can access the financial application. Single sign-on is also implemented, which makes access much easier.
Which of the following access control rules should be changed?

A. Discretionary-based
B. Attribute-based
C. Mandatory-based
D. Role-based

Answer: D

Explanation:
Role-based access control (RBAC) is a type of access control model that assigns permissions and privileges to users based on their roles or functions within an organization or system. RBAC can help simplify and streamline the management and enforcement of access policies, as it can reduce the complexity and redundancy of assigning permissions to individual users or groups. RBAC can also help improve security and compliance, as it can limit or grant access based on the principle of least privilege and the separation of duties. RBAC is the best access control rule to change when the sales group is part of the finance group and the sales team members can access the financial application due to a single sign-on mechanism being implem
Reference: https://www.ekransystem.com/en/blog/rbac-vs-abac

NEW QUESTION 4
- (Topic 1)
A systems administrator disabled TLS 1.0 and 1.1, as well as RC4, 3DES, and AES-128 ciphers for TLS 1.2, on a web server. A client now reports being unable to access the web server, but the administrator verifies that the server is online, the web service is running, and other users can reach the server as well.
Which of the following should the administrator recommend the user do FIRST?

A. Disable antivirus/anti-malware software
B. Turn off the software firewall
C. Establish a VPN tunnel between the computer and the web server
D. Update the web browser to the latest version

Answer: D

Explanation:
Updating the web browser to the latest version is the first action that the user should do when experiencing a connection timeout error after the administrator

configured a redirect from HTTP to HTTPS on the web server. Updating the web browser can ensure that it supports the latest security protocols and standards, such as TLS 1.2 or 1.3, which are required for HTTPS connections. If the web browser is outdated or incompatible with the security protocols or standards used by the web server, it may fail to establish a secure connection and result in a connection timeout error. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 5
- (Topic 1)
A DevOps administrator is automating an existing software development workflow. The administrator wants to ensure that prior to any new code going into production, tests confirm the new code does not negatively impact existing automation activities.
Which of the following testing techniques would be BEST to use?

A. Usability testing
B. Regression testing
C. Vulnerability testing
D. Penetration testing

Answer: B

Explanation:
Regression testing is a type of testing that ensures that new code or changes to existing code do not break or degrade the functionality of the software. Regression testing is often used in software development workflows to verify that new features or bug fixes do not introduce new errors or affect the performance of the software. Regression testing can help prevent negative impacts on existing automation activities by checking that the new code is compatible with the existing code and does not cause any unexpected failures or errors. References: CompTIA Cloud+ Certification Exam Objectives, page 19, section 4.1
Reference: https://www.softwaretestinghelp.com/regression-testing-tools-and-methods/

NEW QUESTION 6
- (Topic 1)
Due to a policy change, a few of a customer's application VMs have been migrated to synchronously replicated storage. The customer now reports that performance is lower. The systems administrator checks the resource usage and discovers CPU utilization is at 60% and available memory is at 30%.
Which of the following is the MOST likely cause?

A. There is not enough vCPU assigned
B. The application is not compatible with the new settings
C. The new configuration is adding latency
D. The memory of the VM is underallocated

Answer: C

Explanation:
Latency is the delay or time taken for data to travel from one point to another in a network or system. Latency can affect the performance of applications and processes that depend on fast and reliable data transfer. Synchronous replication is a method of data replication that ensures that data is written to two or more storage devices at the same time, providing high availability and consistency. However, synchronous replication can also introduce latency, as the write operation has to wait for the confirmation from all the replicated devices before completing. The new configuration of migrating some application VMs to synchronously replicated storage is most likely adding latency, which can lower the performance of the applications. References: [CompTIA Cloud+ Certification Exam Objectives], page 10, section 1.5

NEW QUESTION 7
- (Topic 1)
After analyzing a web server's logs, a systems administrator sees that users are connecting to the company's application through HTTP instead of HTTPS. The administrator then configures a redirect from HTTP to HTTPS on the web server, and the application responds with a connection time-out message.
Which of the following should the administrator verify NEXT?

A. The TLS certificate
B. The firewall rules
C. The concurrent connection limit
D. The folder permissions

Answer: B

Explanation:
The firewall rules are the set of policies that define which traffic is allowed or denied between different network segments or devices. The firewall rules can affect the redirect from HTTP to HTTPS on the web server, as they can block or allow traffic based on ports and protocols. If the firewall rules are not configured properly to allow HTTPS traffic on port 443, the application may respond with a connection time-out message. The administrator should verify the firewall rules next to ensure that HTTPS traffic is permitted between the web server and its clients. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 8
- (Topic 1)
The security team for a large corporation is investigating a data breach. The team members are all trying to do the same tasks but are interfering with each other's work. Which of the following did the team MOST likely forget to implement?

A. Incident type categories
B. A calling tree
C. Change management
D. Roles and responsibilities

Answer: D

Explanation:
Roles and responsibilities are definitions or descriptions of what each team member or stakeholder is expected to do or perform in a project or process. Roles and

responsibilities can help clarify the scope, authority, and accountability of each team member or stakeholder and avoid any confusion or duplication of work. The security team most likely forgot to implement roles and responsibilities when investigating a data breach, as they are all trying to do the same tasks but are interfering with each other's work. Implementing roles and responsibilities can help improve efficiency and effectiveness, as it can ensure that each team member or stakeholder knows what tasks they need to do and how they need to coordinate with others. References: CompTIA Cloud+ Certification Exam Objectives, page 13, section 2.5

NEW QUESTION 9
- (Topic 1)
A systems administrator is deploying a GPU-accelerated VDI solution. Upon requests from several users, the administrator installs an older version of the OS on their virtual workstations. The majority of the VMs run the latest LTS version of the OS.
Which of the following types of drivers will MOST likely ensure compatibility will all virtual workstations?

A. Alternative community drivers
B. Legacy drivers
C. The latest drivers from the vendor's website
D. The drivers from the OS repository

Answer: D

Explanation:
The drivers from the OS repository are the drivers that are included or available in the official software repository or package manager of the operating system. The drivers from the OS repository are most likely to ensure compatibility with all virtual workstations that use a GPU-accelerated VDI solution, as they are tested and verified to work with different versions of the operating system and the hardware. The drivers from the OS repository can also provide stability and security, as they are regularly updated and patched by the operating system vendor or community. References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6

NEW QUESTION 10
- (Topic 1)
A cloud administrator is switching hosting companies and using the same script that was previously used to deploy VMs in the new cloud. The script is returning errors that the command was not found.
Which of the following is the MOST likely cause of the script failure?

A. Account mismatches
B. IP address changes
C. API version incompatibility
D. Server name changes

Answer: C

Explanation:
An application programming interface (API) is a set of rules or protocols that defines how different systems or applications can communicate or interact with each other. An API version is a specific iteration or release of an API that may have different features or functionalities than previous or subsequent versions. API version incompatibility is the most likely cause of the script failure when switching hosting companies and using the same script that was previously used to deploy VMs in the new cloud, as it can result in errors or failures when trying to execute commands or functions that are not supported or recognized by the new cloud provider's API version. The issue can be resolved by updating or modifying the script to match the new cloud provider's API version.
References: CompTIA Cloud+ Certification Exam Objectives, page 13, section 2.5

NEW QUESTION 10
- (Topic 1)
A systems administrator is configuring RAID for a new server. This server will host files for users and replicate to an identical server. While redundancy is necessary, the most important need is to maximize storage.
Which of the following RAID types should the administrator choose?

A. 5
B. 6
C. 10
D. 50

Answer: C

Explanation:
RAID 50 is a type of RAID level that combines RAID 5 and RAID 0 to create a nested RAID configuration. RAID 50 consists of two or more RAID 5 arrays that are striped together using RAID 0. RAID 50 can provide redundancy, fault tolerance, and high performance for large data sets. RAID 50 can also maximize storage, as it has a higher usable capacity than other RAID levels with similar features, such as RAID 6 or RAID 10. The administrator should choose RAID 50 to configure a new server that will host files for users and replicate to an identical server, as it can meet the needs of redundancy and storage maximization. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 13
- (Topic 1)
A company wants to check its infrastructure and application for security issues regularly. Which of the following should the company implement?

A. Performance testing
B. Penetration testing
C. Vulnerability testing
D. Regression testing

Answer: C

Explanation:

Vulnerability testing is a type of testing that identifies and evaluates the weaknesses or flaws in a system or application that could be exploited by attackers. Vulnerability testing can help check the infrastructure and application for security issues regularly, as it can reveal the potential risks and exposures that may compromise the confidentiality, integrity, or availability of the system or application. Vulnerability testing can also help remediate or mitigate the vulnerabilities by providing recommendations or solutions to fix or reduce them. References: CompTIA Cloud+ Certification Exam Objectives, page 19, section 4.1
Reference: https://pure.security/services/technical-assurance/external-penetration-testing/

NEW QUESTION 15
- (Topic 1)
A company has developed a cloud-ready application. Before deployment, an administrator needs to select a deployment technology that provides a high level of portability and is lightweight in terms of footprint and resource requirements.
Which of the following solutions will be BEST to help the administrator achieve the requirements?

A. Containers
B. Infrastructure as code
C. Desktop virtualization
D. Virtual machines

Answer: A

Explanation:
Containers are a type of deployment technology that packages an application and its dependencies into a lightweight and portable unit that can run on any platform or environment. Containers can provide a high level of portability and are lightweight in terms of footprint and resource requirements, as they do not need a full operating system or hypervisor to run. Containers can also enable faster and easier deployment, scaling, and management of cloud-based applications. Containers are the best solution to help the administrator achieve the requirements for deploying a cloud- ready application. References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6
Reference: https://blog.netapp.com/blogs/containers-vs-vms/

NEW QUESTION 16
- (Topic 1)
A systems administrator wants the VMs on the hypervisor to share CPU resources on the same core when feasible.
Which of the following will BEST achieve this goal?

A. Configure CPU passthrough
B. Oversubscribe CPU resources
C. Switch from a Type 1 to a Type 2 hypervisor
D. Increase instructions per cycle
E. Enable simultaneous multithreading

Answer: E

Explanation:
Simultaneous multithreading (SMT) is a type of CPU technology that allows multiple threads to run concurrently on a single CPU core. Enabling SMT can help achieve
the goal of having the VMs on the hypervisor share CPU resources on the same core when feasible, as it can increase the CPU utilization and efficiency by executing more instructions per cycle and reducing idle time or wasted cycles. Enabling SMT can also improve performance and throughput, as it can speed up processing and handle increased workload or demand. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 17
- (Topic 1)
A company has deployed a new cloud solution and is required to meet security compliance.
Which of the following will MOST likely be executed in the cloud solution to meet security requirements?

A. Performance testing
B. Regression testing
C. Vulnerability testing
D. Usability testing

Answer: C

Explanation:
Vulnerability testing is a type of security testing that identifies and evaluates the weaknesses or flaws in a system or service that could be exploited by attackers. Vulnerability testing can help meet security compliance requirements when deploying a new cloud solution, as it can reveal any potential security risks or gaps in the cloud environment and provide recommendations for remediation or mitigation. Vulnerability testing can also help improve security posture and performance, as it can prevent or reduce the impact of cyberattacks, data breaches, or service disruptions.
References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 20
- (Topic 1)
An organization requires the following to be achieved between the finance and marketing departments:
? Allow HTTPS/HTTP.
? Disable FTP and SMB traffic.
Which of the following is the MOST suitable method to meet the requirements?

A. Implement an ADC solution to load balance the VLAN traffic
B. Configure an ACL between the VLANs
C. Implement 802.1X in these VLANs
D. Configure on-demand routing between the VLANs

Answer: B

Explanation:
An access control list (ACL) is a set of rules that defines which traffic is allowed or denied between different network segments or devices. An ACL can be used to filter traffic based on various criteria, such as source and destination addresses, ports, protocols, and applications. Configuring an ACL between the VLANs of the finance and marketing departments is the most suitable method to meet the requirements of allowing HTTPS/HTTP and disabling FTP and SMB traffic. An ACL can specify which ports and protocols are permitted or blocked between the VLANs, such as allowing port 80 (HTTP) and port 443 (HTTPS), and denying port 21 (FTP) and port 445 (SMB). References: [CompTIA Cloud+ Certification Exam Objectives], page 15, section 2.8

NEW QUESTION 22
- (Topic 1)
An organization is hosting a cloud-based web server infrastructure that provides web- hosting solutions. Sudden continuous bursts of traffic have caused the web servers to saturate CPU and network utilizations.
Which of the following should be implemented to prevent such disruptive traffic from reaching the web servers?

A. Solutions to perform NAC and DLP
B. DDoS protection
C. QoS on the network
D. A solution to achieve microsegmentation

Answer: B

Explanation:
Distributed denial-of-service (DDoS) protection is a type of security solution that detects and mitigates DDoS attacks that aim to overwhelm or disrupt a system or service by sending large volumes of traffic from multiple sources. DDoS protection can prevent such disruptive traffic from reaching the web servers by filtering out malicious or unwanted traffic and allowing only legitimate traffic to pass through. DDoS protection can also help maintain the availability and functionality of web services and applications during a DDoS attack. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7
Reference: https://blog.paessler.com/the-top-5-causes-of-sudden-network-spikes

NEW QUESTION 25
- (Topic 1)
A systems administrator is troubleshooting performance issues with a Windows VDI environment. Users have reported that VDI performance is very slow at the start of the workday, but the performance is fine during the rest of the day. Which of the following is the MOST likely cause of the issue? (Choose two.)

A. Disk I/O limits
B. Affinity rule
C. CPU oversubscription
D. RAM usage
E. Insufficient GPU resources
F. License issues

Answer: AC

Explanation:
Disk I/O limits are restrictions or controls that limit the amount of disk input/output operations per second (IOPS) that a VM can perform on a storage device or system. CPU oversubscription is a situation where more CPU resources are allocated to VMs than are physically available on the host or server. Disk I/O limits and CPU oversubscription are most likely to cause VDI performance being very slow at the start of the workday, but fine during the rest of the day, as they can create bottlenecks or contention for disk and CPU resources when multiple users log in or launch their VDI sessions at the same time, resulting in increased latency or reduced throughput for VDI operations. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 26
- (Topic 1)
In an existing IaaS instance, it is required to deploy a single application that has different versions.
Which of the following should be recommended to meet this requirement?

A. Deploy using containers
B. Install a Type 2 hypervisor
C. Enable SR-IOV on the host
D. Create snapshots

Answer: A

Explanation:
Containers are a type of deployment technology that packages an application and its dependencies into a lightweight and portable unit that can run on any platform or environment. Containers can help deploy a single application that has different
versions in an existing IaaS instance, as they can isolate and run multiple versions of the same application without any conflicts or interference. Containers can also enable faster and easier deployment, scaling, and management of cloud-based applications. References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6

NEW QUESTION 31
- (Topic 1)
A company needs to rehost its ERP system to complete a datacenter migration to the public cloud. The company has already migrated other systems and configured VPN connections.
Which of the following MOST likely needs to be analyzed before rehosting the ERP?

A. Software
B. Licensing
C. Right-sizing
D. The network

Answer: D

Explanation:
The network is the set of devices, connections, protocols, and configurations that enable communication and data transfer between different systems and applications. The network can affect the rehosting of an ERP system to complete a datacenter migration to the public cloud, as it can influence factors such as bandwidth, latency, availability, security, and compatibility. The network needs to be analyzed before rehosting the ERP system to ensure that the network requirements and specifications are met, the network performance and reliability are maintained or improved, and the network security and integrity are preserved or enhanced. References: CompTIA Cloud+ Certification Exam Objectives, page 18, section 3.5

NEW QUESTION 34
- (Topic 1)
A company has a cloud infrastructure service, and the cloud architect needs to set up a DR site.
Which of the following should be configured in between the cloud environment and the DR site?

A. Failback
B. Playbook
C. Zoning
D. Replication

Answer: D

Explanation:
Replication is a process of copying or synchronizing data from one location to another to ensure consistency and availability. Replication can help set up a disaster recovery (DR) site for a cloud environment, as it can enable data backup and recovery in case of a failure or outage in the primary site. Replication can also improve performance and reliability, as it can reduce latency and load by distributing data across multiple sites. Replication should be configured between the cloud environment and the DR site to ensure data protection and continuity. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5

NEW QUESTION 39
- (Topic 1)
A media company has made the decision to migrate a physical, internal file server to the cloud and use a web- based interface to access and manage the files.
The users must be able to use their current corporate logins.
Which of the following is the MOST efficient way to achieve this goal?

A. Deploy a VM in a cloud, attach storage, and copy the files across
B. Use a SaaS service with a directory service federation
C. Deploy a fileshare in a public cloud and copy the files across
D. Copy the files to the object storage location in a public cloud

Answer: B

Explanation:
Software as a service (SaaS) is a type of cloud service model that provides software applications over the Internet that are hosted and managed by a cloud service provider. Directory service federation is a type of authentication mechanism that allows users to access multiple systems or applications across different domains or organizations with a single login credential. Using a SaaS service with a directory service federation can help migrate an internal file server to the cloud and use a web-based interface to access and manage the files, as it can eliminate the need for maintaining an on-premises file server and enable seamless and secure access to cloud-based files using the same corporate logins. References: CompTIA Cloud+ Certification Exam Objectives, page 8, section 1.2

NEW QUESTION 44
- (Topic 1)
A company recently subscribed to a SaaS collaboration service for its business users. The company also has an on-premises collaboration solution and would like users to have a seamless experience regardless of the collaboration solution being used.
Which of the following should the administrator implement?

A. LDAP
B. WAF
C. VDI
D. SSO

Answer: D

Explanation:
Single sign-on (SSO) is a type of authentication mechanism that allows users to access multiple systems or applications with a single login credential. SSO can help users have a seamless experience regardless of the collaboration solution being used, as it can eliminate the need for multiple logins and passwords for different systems or applications. SSO can also improve user convenience, productivity, and security, as it can simplify the login process, reduce login errors, and enhance password management. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 48
- (Topic 1)
A systems administrator is provisioning VMs in a cloud environment and has been told to select an OS build with the furthest end-of-life date.
Which of the following OS builds would be BEST for the systems administrator to use?

A. Open-source
B. LTS
C. Canary
D. Beta
E. Stable

Answer: B

Explanation:
Long-term support (LTS) is a type of release cycle that provides extended support and maintenance for software products or operating systems. LTS releases

typically have longer end-of-life dates than regular releases, as they receive security updates, bug fixes, and patches for several years after their initial release date. LTS releases can also offer higher stability, reliability, and compatibility than regular releases, as they undergo more testing and quality assurance processes before being released. LTS is the best OS build for a systems administrator to use when provisioning VMs in a cloud environment and being told to select an OS build with the furthest end-of-life date. References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6

NEW QUESTION 52
- (Topic 2)
A cloud administrator is managing an organization's infrastructure in a public cloud. All servers are currently located in a single virtual network with a single firewall that all traffic must pass through. Per security requirements, production, QA, and development servers should not be able to communicate directly with each other. Which of the following should an administrator perform to comply with the security requirement?

A. Create separate virtual networks for production, QA, and development server
B. Move the servers to the appropriate virtual network.Apply a network security group to each virtual network that denies all traffic except for the firewall.
C. Create separate network security groups for production, QA, and development server
D. Apply the network security groups on the appropriate production, QA, and development servers.Peer the networks together.
E. Create separate virtual networks for production, QA, and development server
F. Move the servers to the appropriate virtual network.Peer the networks together.
G. Create separate network security groups for production, QA, and development server
H. Peer the networks together.Create static routes for each network to the firewall.

Answer: A

Explanation:
These are the actions that the administrator should perform to comply with the security requirement of isolating production, QA, and development servers from each other in a public cloud environment:
? Create separate virtual networks for production, QA, and development servers: A virtual network is a logical isolation of network resources or systems within a cloud environment. Creating separate virtual networks for different types of servers can help to segregate them from each other and prevent direct communication or interference.
? Move the servers to the appropriate virtual network: Moving the servers to the appropriate virtual network can help to assign them to their respective roles and functions, as well as ensure that they follow the network policies and rules of their virtual network.
? Apply a network security group to each virtual network that denies all traffic except for the firewall: A network security group is a set of rules or policies that control and filter inbound and outbound network traffic for a virtual network or system. Applying a network security group to each virtual network that denies all traffic except for the firewall can help to enforce security and compliance by blocking any unauthorized or unwanted traffic between different types of servers, while allowing only necessary traffic through the firewall.

NEW QUESTION 53
- (Topic 2)
A systems administrator is troubleshooting a performance issue with a virtual database server. The administrator has identified the issue as being disk related and believes the cause is a lack of IOPS on the existing spinning disk storage. Which of the following should the administrator do NEXT to resolve this issue?

A. Upgrade the virtual database server.
B. Move the virtual machine to flash storage and test again.
C. Check if other machines on the same storage are having issues.
D. Document the findings and place them in a shared knowledge base.

Answer: B

Explanation:
Moving the virtual machine to flash storage and testing again is what the administrator should do next to resolve the issue of disk-related performance issue with a virtual database server that has been identified as being caused by a lack of IOPS on the existing spinning disk storage. IOPS (Input/Output Operations Per Second) is a measure of how fast a storage device can read and write data. IOPS can affect performance of a virtual database server by determining how quickly it can access and process data from storage. Spinning disk storage is a type of storage device that uses rotating magnetic disks to store data. Spinning disk storage has lower IOPS than flash storage, which is a type of storage device that uses solid-state memory chips to store data. Flash storage has higher IOPS than spinning disk storage, which means that it can read and write data faster and more efficiently than spinning disk storage. Moving the virtual machine to flash storage and testing again can help to resolve the issue by increasing the IOPS and improving the performance of the virtual database server.

NEW QUESTION 56
- (Topic 2)
A systems administrator is using a configuration management tool to perform maintenance tasks in a system. The tool is leveraging the target system's API to perform these maintenance tasks After a number of features and security updates are applied to the target system, the configuration management tool no longer works as expected. Which of the following is the MOST likely cause of the issue?

A. The target system's API functionality has been deprecated
B. The password for the service account has expired
C. The IP addresses of the target system have changed
D. The target system has failed after the updates

Answer: A

Explanation:
The target system’s API (Application Programming Interface) functionality has been deprecated is what will most likely cause the issue of configuration management tool no longer working as expected after using it to perform maintenance tasks in a system using its API, and applying features and security updates to it. An API is a set of rules or specifications that defines how different software components or systems can communicate and interact with each other. An API functionality is a feature or function that an API provides or supports, such as methods, parameters, responses, etc. An API functionality can be deprecated when it is no longer maintained or supported by the API provider or developer, and is replaced or removed by a newer or better functionality. The target system’s API functionality has been deprecated can cause the issue by making the configuration management tool unable to use or access the API functionality that it relies on to perform maintenance tasks in the system, which may result in errors or failures.

NEW QUESTION 58

- (Topic 2)
Which of the following should be considered for capacity planning?

A. Requirements, licensing, and trend analysis
B. Laws and regulations
C. Regions, clusters, and containers
D. Hypervisors and scalability

Answer: A

Explanation:
These are the factors that should be considered for capacity planning in a cloud environment. Capacity planning is a process of estimating and allocating the necessary resources and performance to meet the current and future demands of cloud applications or services. Capacity planning can help to optimize costs, efficiency, and reliability of cloud resources or services. The factors that should be considered for capacity planning are:
? Requirements: These are the specifications or expectations of the cloud applications or services, such as functionality, availability, scalability, security, etc. Requirements can help to determine the type, amount, and quality of resources or services needed to meet the objectives and goals of the cloud applications or services.
? Licensing: This is the agreement or contract that grants customers the right to use or access certain cloud resources or services for a specific period or fee. Licensing can affect the cost, availability, and compliance of cloud resources or services. Licensing can help to determine the budget, duration, and scope of using or accessing cloud resources or services.
? Trend analysis: This is the technique of analyzing historical and current data to identify patterns, changes, or fluctuations in demand or usage of cloud resources or services. Trend analysis can help to predict and anticipate future demand or usage of cloud resources or services, as well as identify any opportunities or challenges that may arise.

NEW QUESTION 59
- (Topic 2)
A cloud architect is reviewing four deployment options for a new application that will be hosted by a public cloud provider. The application must meet an SLA that allows for no
more than five hours of downtime annually. The cloud architect is reviewing the SLAs for the services each option will use:

Option A		Option B	
VM servers	99.00%	Container hosting	99.90%
Attached block storage	99.99%	Shared network storage	99.90%
Total uptime	99.00%	Total uptime	99.90%

Option C		Option D	
Container deployment services	99.95%	Container application services	99.99%
Attached block storage	99.99%	Shared network storage	99.99%
Total uptime	99.95%	Total uptime	99.99%

Based on the information above, which of the following minimally complies with the SLA requirements?

A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

Explanation:
Option B is what minimally complies with the SLA (Service Level Agreement) requirements of allowing for no more than five hours of downtime annually for a new application that will be hosted by a public cloud provider. An SLA is a contract or agreement that defines the level of service or performance that a customer expects from a provider, such as availability, reliability, scalability, security, etc. An SLA can help to measure and monitor the quality and satisfaction of service or performance, as well as identify any penalties or rewards for meeting or failing to meet the SLA. Option B minimally complies with the SLA requirements by using services that have availability percentages that are equal to or higher than 99.95%, which translates to no more than five hours of downtime annually. Option B uses services such as:
? Compute: This is a service that provides computing resources such as servers, processors, memory, etc., to run applications or functions. Option B uses compute service with availability percentage of 99.95%, which means that it guarantees to be available for 99.95% of the time in a year, and allows for no more than five hours of downtime in a year.
? Storage: This is a service that provides storage resources such as disks, volumes, files, etc., to store data or information. Option B uses storage service with availability percentage of 99.99%, which means that it guarantees to be available for 99.99% of the time in a year, and allows for no more than one hour of downtime in a year.
? Database: This is a service that provides database resources such as tables, records, queries, etc., to store and retrieve data or information. Option B uses database service with availability percentage of 99.95%, which means that it guarantees to be available for 99.95% of the time in a year, and allows for no more than five hours of downtime in a year.

NEW QUESTION 60
- (Topic 2)
A systems administrator adds servers to a round-robin, load-balanced pool, and then starts receiving reports of the website being intermittently unavailable. Which of the following is the MOST likely cause of the issue?

A. The network is being saturated.
B. The load balancer is being overwhelmed.
C. New web nodes are not operational.
D. The API version is incompatible.
E. There are time synchronization issues.

Answer: C

Explanation:
New web nodes are not operational is the most likely cause of the issue of website being intermittently unavailable after adding servers to a round-robin, load-balanced pool. A round-robin, load-balanced pool is a method of distributing network traffic evenly and sequentially among multiple servers or nodes that provide the same service or function. A round-robin, load-balanced pool can help to improve performance, availability, and scalability of network applications or services by ensuring that no server or node is overloaded or underutilized. New web nodes are not operational if they are not configured properly or functioning correctly to provide web service or function. New web nodes are not operational can cause website being intermittently unavailable by disrupting the round- robin, load-balanced pool and creating inconsistency or unreliability in web service or function.

NEW QUESTION 61
- (Topic 2)
A system administrator has provisioned a new web server. Which of the following, in combination, form the best practice to secure the server's OS? (Choose three.)

A. Install TLS certificates on the server.
B. Forward port 80 traffic to port 443.
C. Disable TLS 1.0/1.1 and SSL.
D. Disable password authentication.
E. Enable SSH key access only.
F. Provision the server in a separate VPC.
G. Disable the superuser/administrator account.
H. Restrict access on port 22 to the IP address of the administrator's workstation.

Answer: ADE

Explanation:
These are the best practices to secure the OS of a new web server that has been provisioned in a cloud environment:
? Install TLS certificates on the server: TLS (Transport Layer Security) certificates are digital documents that contain information such as identity, public key, expiration date, etc., that can be used to prove one's identity and establish secure communication over a network. Installing TLS certificates on the web server can encrypt and secure web traffic between the server and the clients, as well as prevent spoofing or impersonation attacks.
? Disable password authentication: Password authentication is a method of verifying and authenticating users or devices based on passwords or other credentials. Password authentication can be insecure or vulnerable to attacks such as brute force, dictionary, phishing, etc., especially if passwords are weak, reused, or compromised. Disabling password authentication can enhance security by preventing unauthorized or malicious access to the web server using passwords.
? Enable SSH key access only: SSH key access is a method of verifying and authenticating users or devices based on digital keys issued by a trusted authority. SSH key access can provide more security and convenience than password authentication, as it does not require users or devices to remember or enter passwords every time they access the web server. Enabling SSH key access only can ensure that only authorized or trusted users or devices can access the web server using keys.

NEW QUESTION 62
- (Topic 2)
After announcing a big sales promotion, an e-commerce company starts to experience a slow response on its platform that is hosted in a public cloud. When checking the resources involved, the systems administrator sees the following consumption:

VM	Memory used	CPU used	Network used
webserver01	89%	98%	12%
appserver01	45%	43%	13%
appserver02	43%	44%	15%
database01	55%	50%	60%

Considering all VMs were built from the same templates, which of the following actions should the administrator perform FIRST to speed up the response of the e-commerce platform?

A. Spin up a new web server
B. Spin up a new application server
C. Add more memory to the web server
D. Spin up a new database server

Answer: D

Explanation:
Spinning up a new web server is what the administrator should perform first to speed up the response of the e-commerce platform that is hosted in a public cloud and starts to experience a slow response after announcing a big sales promotion. A web server is a system or service that hosts and delivers web content, such as web pages, images, videos, etc., to clients over a network or internet connection. A web server can affect the response of an e-commerce platform by determining how fast it can process and serve web requests or responses from clients. Spinning up a new web server can speed up the response of an e-commerce platform by providing benefits such as:
? Scalability: Spinning up a new web server can increase the scalability of the e-commerce platform by adding more capacity or resources to handle the increased demand or load caused by the sales promotion, without affecting the existing web servers.
? Performance: Spinning up a new web server can improve the performance of the e-commerce platform by reducing the latency or overhead of processing and serving web requests or responses from clients, which may cause delays or errors.

NEW QUESTION 67
- (Topic 2)
A cloud solutions architect needs to determine the best strategy to deploy an application environment in production, given the following requirements:
No downtime
Instant switch to a new version using traffic control for all users
Which of the following deployment strategies would be the BEST solution?

A. Hot site
B. Blue-green

C. Canary
D. Rolling

Answer: B

Explanation:
Reference: https://thenewstack.io/deployment-strategies/
Blue-green is the best deployment strategy to deploy an application environment in production, given the requirements of no downtime and instant switch to a new version using traffic control for all users. Blue-green is a deployment strategy that involves having two identical environments, one running the current version of the application (blue) and one running the new version of the application (green). The traffic is directed to the blue environment by default, while the green environment is tested and verified. When the new version is ready to go live, the traffic is switched to the green environment using a router or load balancer, without any downtime or interruption. The blue environment can be kept as a backup or updated with the new version for future deployments.

NEW QUESTION 72
- (Topic 2)
A cloud administrator is reviewing the annual contracts for all hosted solutions. Upon review of the contract for the hosted mail solution, the administrator notes the monthly subscription rate has increased every year. The provider has been in place for ten years, and there is a large amount of data being hosted. Which of the following is a barrier to switching providers?

A. Service-level agreement
B. Vendor lock-in
C. Memorandum of understanding
D. Encrypted data

Answer: B

Explanation:
Vendor lock-in is a barrier to switching providers for a hosted mail solution that has increased its monthly subscription rate every year. Vendor lock-in is a situation where a customer becomes dependent on a vendor or provider for a product or service and faces difficulties or costs in switching to another vendor or provider. Vendor lock-in can occur due to various factors, such as proprietary technology, contractual obligations, data migration challenges, compatibility issues, etc. In this case, the customer may face vendor lock-in due to the large amount of data being hosted by the mail provider and the potential challenges or costs of transferring or migrating the data to another provider.

NEW QUESTION 74
- (Topic 2)
A cloud administrator has been using a custom VM deployment script. After three months of use, the script no longer joins the LDAP domain. The cloud administrator verifies the account has the correct permissions. Which of the following is the MOST likely cause of the failure?

A. Incorrect encryption ciphers
B. Broken trust relationship
C. Invalid certificates
D. Expired password

Answer: D

Explanation:
An expired password is the most likely cause of the failure of a custom VM deployment script that no longer joins the LDAP domain. LDAP (Lightweight Directory Access Protocol) is a protocol that allows access and management of directory services, such as user accounts, groups, permissions, etc., over a network. LDAP can be used to authenticate and authorize users or devices to access network resources or systems. An expired password is a password that has reached its validity period and needs to be changed or renewed. An expired password can prevent users or devices from joining or accessing an LDAP domain, as it may indicate that the account is inactive, compromised, or outdated.

NEW QUESTION 79
- (Topic 2)
A systems administrator has been asked to restore a VM from backup without changing the current VM's operating state. Which of the following restoration methods would BEST fit this scenario?

A. Alternate location
B. Rolling
C. Storage live migration
D. In-place

Answer: C

Explanation:
Storage live migration is the best restoration method to restore a VM from backup without changing the current VM’s operating state. Storage live migration is a process of moving or transferring storage resources or data from one location to another without affecting or interrupting the operation or performance of the VMs that use them. Storage live migration can help to restore a VM from backup by copying the backup data to a new storage location and switching the VM’s storage configuration to point to the new location, without requiring any downtime or reboot.

NEW QUESTION 82
- (Topic 2)
Some VMs that are hosted on a dedicated host server have each been allocated with 32GB of memory. Some of VMs are not utilizing more than 30% of the allocation. Which of the following should be enabled to optimize the memory utilization?

A. Auto-scaling of compute
B. Oversubscription
C. Dynamic memory allocations on guests
D. Affinity rules in the hypervisor

Answer: C

Explanation:
Enabling dynamic memory allocations on guests is the best option to optimize memory utilization for VMs that have been allocated with 32GB of memory but are not utilizing more than 30% of it. Dynamic memory allocation is a feature that allows a VM to adjust its memory usage according to its workload and demand, without requiring a reboot or manual intervention. Dynamic memory allocation can help to improve memory utilization and efficiency by allocating more memory to VMs that need it and releasing memory from VMs that do not need it.

NEW QUESTION 84
- (Topic 2)
All of a company's servers are currently hosted in one cloud MSP. The company created a new cloud environment with a different MSP. A cloud engineer is now tasked with preparing for server migrations and establishing connectivity between clouds. Which of the following should the engineer perform FIRST?

A. Peer all the networks from each cloud environment.
B. Migrate the servers.
C. Create a VPN tunnel.
D. Configure network access control lists.

Answer: C

Explanation:
Creating a VPN tunnel is the first action that the engineer should perform to
prepare for server migrations and establish connectivity between clouds. A VPN (Virtual Private Network) tunnel is a secure and encrypted connection that allows data to be transferred between two networks or locations over the public internet. Creating a VPN tunnel can enable communication and interoperability between different cloud environments, as well as protect data from interception or modification during migration.

NEW QUESTION 89
- (Topic 2)
Users are experiencing slow response times from an intranet website that is hosted on a cloud platform. There is a site-to-site VPN connection to the cloud provider over a link of 100Mbps.
Which of the following solutions will resolve the issue the FASTEST?

A. Change the connection to point-to-site VPN
B. Order a direct link to the provider
C. Enable quality of service
D. Upgrade the link to 200Mbps

Answer: B

Explanation:
Ordering a direct link to the provider is the fastest solution to resolve the issue of slow response times from an intranet website that is hosted on a cloud platform. A direct link is a dedicated, high-bandwidth, low-latency connection between the customer’s network and the cloud provider’s network. It bypasses the public internet and provides better performance, security, and reliability. Examples of direct links are AWS Direct Connect, Azure ExpressRoute, Google Cloud Interconnect, etc.

NEW QUESTION 94
- (Topic 2)
A company has an in-house-developed application. The administrator wants to utilize cloud services for additional peak usage workloads. The application has a very unique stack of dependencies.
Which of the following cloud service subscription types would BEST meet these requirements?

A. PaaS
B. SaaS
C. DBaaS
D. IaaS

Answer: D

Explanation:
IaaS (Infrastructure as a Service) is a cloud service model that provides basic computing resources such as servers, storage, network, etc., to the customers. The customers have full control and flexibility over these resources and can install and configure any software they need on them. IaaS is suitable for applications that have a unique stack of dependencies that may not be supported by other cloud service models.

NEW QUESTION 97
- (Topic 2)
A systems administrator is configuring updates on a system. Which of the following update branches should the administrator choose to ensure the system receives updates that are maintained for at least four years?

A. LTS
B. Canary
C. Beta
D. Stable

Answer: A

Explanation:
LTS (Long Term Support) is the update branch that the administrator should choose to ensure the system receives updates that are maintained for at least four years. An update branch is a category or group of updates that have different characteristics or features, such as frequency, stability, duration, etc. An update

branch can help customers to choose the type of updates that suit their needs and preferences. LTS is an update branch that provides updates that are stable, reliable, and secure, and are supported for a long period of time, usually four years or more. LTS can help customers who value stability and security over new features or functions, and who do not want to change or upgrade their systems frequently.

NEW QUESTION 99
- (Topic 2)
Which of the following cloud services is fully managed?

A. IaaS
B. GPU in the cloud
C. IoT
D. Serverless compute
E. SaaS

Answer: E

Explanation:
SaaS (Software as a Service) is a cloud service model that provides fully managed applications to the end users. The users do not have to worry about installing, updating, or maintaining the software, as the cloud provider handles all these tasks. Examples of SaaS are Gmail, Office 365, Salesforce, etc.

NEW QUESTION 103
- (Topic 2)
A system administrator is migrating a bare-metal server to the cloud. Which of the following types of migration should the systems administrator perform to accomplish this task?

A. V2V
B. V2P
C. P2P
D. P2V

Answer: D

Explanation:
P2V (Physical to Virtual) is a type of migration that converts a physical server into a virtual machine (VM). P2V migration can help to move a bare-metal server to the cloud by creating an image of its disk and configuration and uploading it to a cloud platform that supports VM creation from custom images.

NEW QUESTION 108
- (Topic 2)
A cloud administrator is setting up a new coworker for API access to a public cloud environment. The administrator creates a new user and gives the coworker access to a collection of automation scripts. When the coworker attempts to use a deployment script, a 403 error is returned. Which of the following is the MOST likely cause of the error?

A. Connectivity to the public cloud is down.
B. User permissions are not correct.
C. The script has a configuration error.
D. Oversubscription limits have been exceeded.

Answer: B

Explanation:
User permissions are not correct is the most likely cause of the error 403 (Forbidden) that is returned when a coworker attempts to use a deployment script after being set up for API access to a public cloud environment by an administrator. API (Application Programming Interface) is a set of rules or specifications that defines how different software components or systems can communicate and interact with each other. API access is the ability to use or access an API to perform certain actions or tasks on a software component or system. User permissions are the settings or policies that control and restrict what users can do or access on a software component or system. User permissions can affect API access by determining what actions or tasks users can perform using an API on a software component or system. User permissions are not correct if they do not match or align with the intended or expected actions or tasks that users want to perform using an API on a software component or system. User permissions are not correct can cause error 403 (Forbidden), which means that the user does not have the necessary permission or authorization to perform the requested action or task using an API on a software component or system.

NEW QUESTION 112
- (Topic 2)
A systems administrator swapped a failed hard drive on a server with a RAID 5 array. During the RAID resynchronization, a second hard drive failed.
Which of the following actions will make the server fully operational?

A. Restart the RAID resynchronization process
B. Perform a P2V migration of the server
C. Swap the failed hard drive with a fresh one
D. Restore the server from backup

Answer: D

Explanation:
RAID 5 is a disk array configuration that uses parity to provide fault tolerance and data recovery. RAID 5 can tolerate the failure of one disk, but not two or more disks. If a second disk fails during the resynchronization process, the data on the RAID 5 array will be lost and unrecoverable. The only way to make the server fully operational is to restore the data from a backup source.

NEW QUESTION 114
- (Topic 2)

A systems administrator has received an email from the virtualized environment's alarms indicating the memory was reaching full utilization. When logging in, the administrator notices that one out of a five-host cluster has a utilization of 500GB out of 512GB of RAM. The baseline utilization has been 300GB for that host. Which of the following should the administrator check NEXT?

A. Storage array
B. Running applications
C. VM integrity
D. Allocated guest resources

Answer: D

Explanation:
Allocated guest resources is what the administrator should check next after receiving an email from the virtualized environment's alarms indicating the memory was reaching full utilization and noticing that one out of a five-host cluster has a utilization of 500GB out of 512GB of RAM. Allocated guest resources are the amount of resources or capacity that are assigned or reserved for each guest system or device within a host system or device. Allocated guest resources can affect performance and utilization of host system or device by determining how much resources or capacity are available or used by each guest system or device. Allocated guest resources should be checked next by comparing them with the actual usage or demand of each guest system or device, as well as identifying any overallocation or underallocation of resources that may cause inefficiency or wastage.

NEW QUESTION 115
- (Topic 2)
A technician needs to deploy two virtual machines in preparation for the configuration of a financial application next week. Which of the following cloud deployment models should the technician use?

A. XaaS
B. IaaS
C. PaaS
D. SaaS

Answer: B

Explanation:
IaaS (Infrastructure as a Service) is the cloud deployment model that the technician should use to deploy two virtual machines in preparation for the configuration of a financial application next week. IaaS is a cloud service model that provides basic computing resources such as servers, storage, network, etc., to the customers. The customers have full control and flexibility over these resources and can install and configure any software they need on them. IaaS is suitable for deploying virtual machines, as it allows the customers to choose their preferred OS, applications, settings, etc., and customize them according to their needs.

NEW QUESTION 117
- (Topic 2)
A systems administrator has finished installing monthly updates to servers in a cloud environment. The administrator notices certain portions of the playbooks are no longer functioning. Executing the playbook commands manually on a server does not work as well. There are no other reports of issues.
Which of the following is the MOST likely cause of this issue?

A. Change management failure
B. Service overload
C. Patching failure
D. Job validation issues
E. Deprecated features

Answer: E

Explanation:
Deprecated features are features that are no longer supported or recommended by the software vendor or provider. They may be removed or replaced by newer features in future updates or versions. If a playbook relies on deprecated features, it may stop functioning after an update or patch is applied to the software. The administrator should check the release notes or documentation of the software to identify and replace any deprecated features in the playbook.

NEW QUESTION 122
- (Topic 2)
A systems administrator is performing upgrades to all the hypervisors in the environment. Which of the following components of the hypervisors should be upgraded? (Choose two.)

A. The fabric interconnects
B. The virtual appliances
C. The firmware
D. The virtual machines
E. The baselines
F. The operating system

Answer: CF

Explanation:
These are the components of the hypervisors that should be upgraded by the administrator who is performing upgrades to all the hypervisors in the environment. A hypervisor is a software or hardware that allows multiple VMs (Virtual Machines) to run on a single physical host or server. A hypervisor consists of various components, such as:
? The firmware: This is the software that controls the basic functions and operations of the hardware or device. The firmware can affect the performance, compatibility, and security of the hypervisor and the VMs. The firmware should be upgraded to ensure that it supports the latest features and functions of the hardware or device, as well as fix any bugs or vulnerabilities.
? The operating system: This is the software that manages the resources and activities of the hypervisor and the VMs. The operating system can affect the functionality, reliability, and efficiency of the hypervisor and the VMs. The operating system should be upgraded to ensure that it supports the latest applications and services of the hypervisor and the VMs, as well as improve stability and performance.

NEW QUESTION 126
- (Topic 2)
A VDI administrator has received reports from the drafting department that rendering is slower than normal. Which of the following should the administrator check FIRST to optimize the performance of the VDI infrastructure?

A. GPU
B. CPU
C. Storage
D. Memory

Answer: A

Explanation:
Checking the GPU (Graphics Processing Unit) is the first thing that the VDI administrator should do to optimize the performance of the VDI infrastructure for rendering tasks. GPU is a specialized hardware device that accelerates graphics processing and rendering. GPU can improve the user experience and performance of VDI applications that require intensive graphics processing, such as drafting, gaming, video editing, etc.

NEW QUESTION 131
- (Topic 2)
A DevOps administrator is designing a new machine-learning platform. The application needs to be portable between public and private clouds and should be kept as small as possible. Which of the following approaches would BEST meet these requirements?

A. Virtual machines
B. Software as a service
C. Serverless computing
D. Containers

Answer: D

Explanation:
Containers are the best approach to design a new machine-learning platform that needs to be portable between public and private clouds and should be kept as small as possible. Containers are isolated environments that can run applications and their dependencies without interfering with other processes or systems. Containers are lightweight, portable, and scalable, which makes them ideal for machine-learning applications. Containers can be moved easily between public and private clouds without requiring any changes or modifications. Containers can also reduce the size and complexity of applications by using only the necessary components and libraries.

NEW QUESTION 135
- (Topic 2)
A technician is trying to delete six decommissioned VMs. Four VMs were deleted without issue. However, two of the VMs cannot be deleted due to an error. Which of the following would MOST likely enable the technician to delete the VMs?

A. Remove the snapshots
B. Remove the VMs' IP addresses
C. Remove the VMs from the resource group
D. Remove the lock from the two VMs

Answer: D

Explanation:
Removing the lock from the two VMs is what would most likely enable the technician to delete the VMs that cannot be deleted due to an error. A lock is a feature that prevents certain actions or operations from being performed on a resource or service, such as deleting, modifying, moving, etc. A lock can help to protect a resource or service from accidental or unwanted changes or removals. Removing the lock from the two VMs can enable the technician to delete them by allowing the delete action or operation to be performed on them.

NEW QUESTION 139
- (Topic 2)
A systems administrator is troubleshooting performance issues with a VDI environment. The administrator determines the issue is GPU related and then increases the frame buffer on the virtual machines. Testing confirms the issue is solved, and everything is now working correctly. Which of the following should the administrator do NEXT?

A. Consult corporate policies to ensure the fix is allowed
B. Conduct internal and external research based on the symptoms
C. Document the solution and place it in a shared knowledge base
D. Establish a plan of action to resolve the issue

Answer: C

Explanation:
Documenting the solution and placing it in a shared knowledge base is what the administrator should do next after troubleshooting performance issues with a VDI (Virtual Desktop Infrastructure) environment, determining that the issue is GPU (Graphics Processing Unit) related, increasing the frame buffer on the virtual machines, and testing that confirms that the issue is solved and everything is now working correctly. Documenting the solution is a process of recording and describing what was done to fix or resolve an issue, such as actions, steps, methods, etc., as well as why and how it worked. Placing it in a shared knowledge base is a process of storing and organizing documented solutions in a central location or repository that can be accessed and used by others. Documenting the solution and placing it in a shared knowledge base can provide benefits such as:
? Learning: Documenting the solution and placing it in a shared knowledge base can help to learn from past experiences and improve skills and knowledge.
? Sharing: Documenting the solution and placing it in a shared knowledge base can help to share information and insights with others who may face similar issues or situations.
? Reusing: Documenting the solution and placing it in a shared knowledge base can help to reuse existing solutions for future issues or situations.

NEW QUESTION 140
- (Topic 2)
Which of the following service models would be used for a database in the cloud?

A. PaaS
B. laaS
C. CaaS
D. SaaS

Answer: A

Explanation:
PaaS (Platform as a Service) is a cloud service model that provides a platform for developing, testing, deploying, and managing applications in the cloud. PaaS includes the underlying infrastructure (servers, storage, network, etc.) as well as the middleware, databases, tools, frameworks, and APIs that are required for application development and delivery. Examples of PaaS are AWS Elastic Beanstalk, Azure App Service, Google App Engine, etc.

NEW QUESTION 142
- (Topic 2)
A company needs a solution to find content in images. Which of the following technologies, when used in conjunction with cloud services, would facilitate the BEST solution?

A. Internet of Things
B. Digital transformation
C. Artificial intelligence
D. DNS over TLS

Answer: C

Explanation:
Artificial intelligence (AI) is the technology that, when used in conjunction with cloud services, would facilitate the best solution for finding content in images. AI is a branch of computer science that aims to create machines or systems that can perform tasks that normally require human intelligence, such as reasoning, learning, decision making, etc. AI can be used to analyze images and extract information such as objects, faces, text, emotions, etc., using techniques such as computer vision, machine learning, natural language processing, etc. AI can help to find content in images faster, more accurately, and more efficiently than manual methods.

NEW QUESTION 145
- (Topic 2)
A systems administrator is examining a managed hosting agreement and wants to determine how much data would be lost if a server had to be restored from backups. To which of the following metrics should the administrator refer?

A. RTO
B. MTBF
C. RPO
D. MTTR

Answer: C

Explanation:
RPO (Recovery Point Objective) is the metric that the administrator should refer to determine how much data would be lost if a server had to be restored from backups. RPO is a metric that measures how much data can be lost or how far back in time a recovery point can be without causing significant impact or damage. RPO can help to determine how much data would be lost by comparing the time of the disruption or disaster with the time of the last backup or snapshot. RPO can also help to determine how frequently backups or snapshots should be performed to minimize data loss.

NEW QUESTION 150
- (Topic 2)
An organization suffered a critical failure of its primary datacenter and made the decision to switch to the DR site. After one week of using the DR site, the primary datacenter is now ready to resume operations.
Which of the following is the MOST efficient way to bring the block storage in the primary datacenter up to date with the DR site?

A. Set up replication.
B. Copy the data across both sites.
C. Restore incremental backups.
D. Restore full backups.

Answer: A

Explanation:
Reference: https://www.ibm.com/docs/en/cloud-pak-system-w3550/2.3.3?topic=system- administering-block-storage-replication
Setting up replication is the most efficient way to bring the block storage in the primary datacenter up to date with the DR site after a critical failure. Replication is a process of copying data from one location to another in real-time or near real-time. Replication can be synchronous or asynchronous, depending on the latency and bandwidth requirements. Replication can ensure data consistency and availability across multiple sites and facilitate faster recovery.

NEW QUESTION 151
- (Topic 2)
A systems administrator is deploying a solution that includes multiple network I/O-intensive VMs. The solution design requires that vNICs of the VMs provide low-latency, near-native performance of a physical NIC and data protection between the VMs. Which of the following would BEST satisfy these requirements?

A. SR-IOV
B. GENEVE

C. SDN
D. VLAN

Answer: A

Explanation:
SR-IOV (Single Root Input/Output Virtualization) is what would best satisfy the requirements of low-latency, near-native performance of a physical NIC and data protection between VMs for multiple network I/O-intensive VMs. SR-IOV is a technology that allows a physical NIC to be partitioned into multiple virtual NICs that can be assigned to different VMs. SR-IOV can provide the following benefits:
? Low-latency: SR-IOV can reduce latency by bypassing the hypervisor and allowing direct communication between the VMs and the physical NIC, without any overhead or interference.
? Near-native performance: SR-IOV can provide near-native performance by allowing the VMs to use the full capacity and functionality of the physical NIC, without any emulation or translation.
? Data protection: SR-IOV can provide data protection by isolating and securing the network traffic between the VMs and the physical NIC, without any exposure or leakage.

NEW QUESTION 152
- (Topic 2)
A systems administrator is creating a VM and wants to ensure disk space is not allocated to the VM until it is needed. Which of the following techniques should the administrator use to ensure?

A. Deduplication
B. Thin provisioning
C. Software-defined storage
D. iSCSI storage

Answer: B

Explanation:
Thin provisioning is the technique that ensures disk space is not allocated to the VM until it is needed. Thin provisioning is a storage allocation method that assigns disk space to a VM on demand, rather than in advance. Thin provisioning can improve storage utilization and efficiency by avoiding overprovisioning and wasting disk space. Thin provisioning can also allow for more flexibility and scalability of storage resources.

NEW QUESTION 157
- (Topic 2)
A Chief Information Security Officer (CISO) is evaluating the company's security management program. The CISO needs to locate all the assets with identified deviations and mitigation measures. Which of the following would help the CISO with these requirements?

A. An SLA document
B. ADR plan
C. SOC procedures
D. A risk register

Answer: D

Explanation:
A risk register is a document that records all the identified risks, their causes, impacts, probabilities, mitigation measures, and status for a project or an organization. A risk register helps to manage and monitor risks throughout their lifecycle and ensure they are addressed appropriately. A risk register would help the CISO to locate all the assets with identified deviations and mitigation measures.

NEW QUESTION 162
- (Topic 2)
Which of the following would be the BEST option for discussion of what individuals should do in an incident response or disaster recovery scenario?

A. A business continuity plan
B. Incident response/disaster recovery documentation
C. A tabletop exercise
D. A root cause analysis

Answer: C

Explanation:
A tabletop exercise is the best option for discussion of what individuals should do in an incident response or disaster recovery scenario. A tabletop exercise is a simulated scenario that involves key stakeholders and decision-makers who review and discuss their roles and responsibilities in response to an emergency situation or event. A tabletop exercise can help to test and evaluate plans, procedures, policies, training, and communication.

NEW QUESTION 166
- (Topic 2)
A system administrator supports an application in the cloud, which includes a restful API that receives an encrypted message that is passed to a calculator system. The administrator needs to ensure the proper function of the API using a new automation tool. Which of the following techniques would be BEST for the administrator to use to accomplish this requirement?

A. Functional testing
B. Performance testing
C. Integration testing
D. Unit testing

Answer: C

Explanation:
Integration testing is the best technique to use to ensure the proper function of an API that receives an encrypted message that is passed to a calculator system. Integration testing is a type of testing that verifies and validates the functionality, performance, and reliability of different components or modules of a system or application when they are combined or integrated together. Integration testing can help to ensure the API can communicate and interact with the calculator system correctly and securely, as well as identify any errors or issues that may arise from the integration.

NEW QUESTION 167
- (Topic 2)
A systems administrator is analyzing a report of slow performance in a cloud application. This application is working behind a network load balancer with two VMs, and each VM has its own digital certificate configured. Currently, each VM is consuming 85% CPU on average. Due to cost restrictions, the administrator cannot scale vertically or horizontally in the environment. Which of the following actions should the administrator take to decrease the CPU utilization? (Choose two.)

A. Configure the communication between the load balancer and the VMs to use a VPN.
B. Move the digital certificate to the load balancer.
C. Configure the communication between the load balancer and the VMs to use HTTP.
D. Reissue digital certificates on the VMs.
E. Configure the communication between the load balancer and the VMs to use HTTPS.
F. Keep the digital certificates on the VMs.

Answer: BC

Explanation:
Moving the digital certificate to the load balancer and configuring the communication between the load balancer and the VMs to use HTTP are two actions that will decrease the CPU utilization of the VMs that are running behind a network load balancer with two VMs, each with its own digital certificate configured. Moving the digital certificate to the load balancer will offload the SSL/TLS encryption and decryption tasks from the VMs to the load balancer, which can reduce the CPU overhead and improve performance. Configuring the communication between the load balancer and the VMs to use HTTP will eliminate the need for encryption and decryption between them, which can also reduce CPU consumption. However, this may introduce security risks if sensitive data is transmitted over HTTP.

NEW QUESTION 172
- (Topic 2)
A cloud provider wants to make sure consumers are utilizing its IaaS platform but prevent them from installing a hypervisor on the server. Which of the following will help the cloud provider secure the environment and limit consumers' activity?

A. Patch management
B. Hardening
C. Scaling
D. Log and event monitoring

Answer: B

Explanation:
Hardening is the best option to help the cloud provider secure the environment and limit consumers' activity on its IaaS platform. Hardening is a process of reducing the attack surface and vulnerabilities of a system or device by applying security configurations, patches, updates, policies, rules, etc. Hardening can prevent consumers from installing unauthorized or unsupported software on their cloud servers, such as hypervisors.

NEW QUESTION 177
- (Topic 2)
A company is preparing a hypervisor environment to implement a database cluster. One of the requirements is to share the disks between the nodes of the cluster to access the same LUN. Which of the following protocols should the company use? (Choose two.)

A. CIFS
B. FTP
C. iSCSI
D. RAID 10
E. NFS
F. FC

Answer: CF

Explanation:
These are the protocols that should be used to share the disks between the nodes of a database cluster to access the same LUN (Logical Unit Number). A LUN is an identifier that represents a logical unit of storage, such as a disk, partition, volume, etc., that can be accessed by a host system or device. To share the disks between the nodes of a cluster, the following protocols can be used:
? iSCSI (Internet Small Computer System Interface): This is a protocol that allows SCSI commands to be sent over IP networks. iSCSI can enable block-level storage access over a network, which means that the host system or device can access the storage as if it were a local disk.
? FC (Fibre Channel): This is a protocol that provides high-speed and low-latency data transfer over optical fiber cables. FC can also enable block-level storage access over a network, which means that the host system or device can access the storage as if it were a local disk.

NEW QUESTION 178
- (Topic 2)
An administrator is securing a private cloud environment and wants to ensure only approved systems can connect to switches. Which of the following would be MOST useful to accomplish this task?

A. VLAN
B. NIPS
C. WAF
D. NAC

Answer: D

Explanation:

Reference: https://www.cisco.com/c/en/us/products/security/what-is-network-access- control-nac.html
NAC (Network Access Control) is what the administrator should implement to ensure only approved systems can connect to switches in a private cloud environment. NAC is a security technique that controls and restricts access to network resources based on predefined policies or rules. NAC can verify and authenticate users or devices before granting them access to switches or other network devices. NAC can also enforce compliance and security standards on users or devices before allowing them to connect to switches.

NEW QUESTION 179
- (Topic 2)
Users of a public website that is hosted on a cloud platform are receiving a message indicating the connection is not secure when landing on the website. The administrator has found that only a single protocol is opened to the service and accessed through the URL https://www.comptiasite.com. Which of the following would MOST likely resolve the issue?

A. Renewing the expired certificate
B. Updating the web-server software
C. Changing the crypto settings on the web server
D. Upgrading the users' browser to the latest version

Answer: A

Explanation:
Renewing the expired certificate is what would most likely resolve the issue of users receiving a message indicating the connection is not secure when landing on a website that is hosted on a cloud platform and accessed through https://www.comptiasite.com. A certificate is a digital document that contains information such as identity, public key, expiration date, etc., that can be used to prove one’s identity and establish secure communication over a network. A certificate can expire when it reaches its validity period and needs to be renewed or replaced. An expired certificate can cause users to receive a message indicating the connection is not secure by indicating that the website’s identity or security cannot be verified or trusted. Renewing the expired certificate can resolve the issue by extending its validity period and restoring its identity or security verification or trust.

NEW QUESTION 180
- (Topic 2)
A company recently experienced a power outage that lasted 30 minutes. During this time, a whole rack of servers was inaccessible, even though the servers did not lose power.
Which of the following should be investigated FIRST?

A. Server power
B. Rack power
C. Switch power
D. SAN power

Answer: C

Explanation:
If a whole rack of servers was inaccessible during a power outage, even though the servers did not lose power, it is likely that the switch that connects them to the network lost power. Without network connectivity, the servers would not be able to communicate with other devices or services. The administrator should investigate the switch power source and ensure it has a backup power supply or UPS.

NEW QUESTION 183
- (Topic 2)
A cloud security analyst needs to ensure the web servers in the public subnet allow only secure communications and must remediate any possible issue. The stateful configuration for the public web servers is as follows:

ID	Direction	Protocol	Port	Source	Action
1	inbound	TCP	80	any	allow
2	inbound	TCP	443	any	allow
3	inbound	TCP	3306	any	allow
4	inbound	TCP	3389	any	allow
5	outbound	UDP	53	any	allow
*	both	any	any	any	deny

Which of the following actions should the analyst take to accomplish the objective?

A. Remove rules 1, 2, and 5.
B. Remove rules 1, 3, and 4.
C. Remove rules 2, 3, and 4.
D. Remove rules 3, 4, and 5.

Answer: A

Explanation:
To ensure the web servers in the public subnet allow only secure communications and remediate any possible issue, the analyst should remove rules 1, 2, and 5

from the stateful configuration. These rules are allowing insecure or unnecessary traffic to or from the web servers, which may pose security risks or performance issues. The rules are:
? Rule 1: This rule allows inbound traffic on port 80 (HTTP) from any source to any destination. HTTP is an unencrypted and insecure protocol that can expose web traffic to interception, modification, or spoofing. The analyst should remove this rule and use HTTPS (port 443) instead, which encrypts and secures web traffic.
? Rule 2: This rule allows outbound traffic on port 25 (SMTP) from any source to any destination. SMTP is a protocol that is used to send email messages. The web servers in the public subnet do not need to send email messages, as this is not their function. The analyst should remove this rule and block outbound SMTP traffic, which may prevent spamming or phishing attacks from compromised web servers.
? Rule 5: This rule allows inbound traffic on port 22 (SSH) from any source to any destination. SSH is a protocol that allows remote access and management of systems or devices using a command-line interface. The web servers in the public subnet do not need to allow SSH access from any source, as this may expose them to unauthorized or malicious access. The analyst should remove this rule and restrict SSH access to specific sources, such as the administrator's workstation or a bastion host.

NEW QUESTION 184
- (Topic 2)
A cloud administrator set up a link between the private and public cloud through a VPN tunnel. As part of the migration, a large set of files will be copied. Which of the following network ports are required from a security perspective?

A. 22, 53, 445
B. 22, 443, 445
C. 25, 123, 443
D. 137, 139, 445

Answer: B

Explanation:
These are the network ports that are required from a security perspective to copy a large set of files between the private and public cloud through a VPN tunnel. A VPN (Virtual Private Network) tunnel is a secure and encrypted connection that allows data to be transferred between two networks or locations over the public internet. To copy files between the private and public cloud, the following ports are needed:
? Port 22: This is the port used by SSH (Secure Shell) protocol, which is a method of remotely accessing and managing cloud resources or systems using a command- line interface. SSH can also be used to securely transfer files using SCP (Secure Copy Protocol) or SFTP (SSH File Transfer Protocol).
? Port 443: This is the port used by HTTPS (Hypertext Transfer Protocol Secure), which is a protocol that encrypts and secures web traffic. HTTPS can also be used to transfer files using web browsers or tools such as curl or wget.
? Port 445: This is the port used by SMB (Server Message Block) protocol, which is a protocol that allows file sharing and access over a network. SMB can also be used to transfer files using tools such as robocopy or rsync.

NEW QUESTION 185
- (Topic 2)
Which of the following actions should a systems administrator perform during the containment phase of a security incident in the cloud?

A. Deploy a new instance using a known-good base image.
B. Configure a firewall rule to block the traffic on the affected instance.
C. Perform a forensic analysis of the affected instance.
D. Conduct a tabletop exercise involving developers and systems administrators.

Answer: B

Explanation:
Configuring a firewall rule to block the traffic on the affected instance is what the administrator should perform during the containment phase of a security incident in the cloud. A security incident is an event or situation that affects or may affect the confidentiality, integrity, or availability of cloud resources or data. A security incident response is a process of managing and resolving a security incident using various phases, such as identification, containment, eradication, recovery, etc. The containment phase is where the administrator tries to isolate and prevent the spread or escalation of the security
incident. Configuring a firewall rule to block the traffic on the affected instance can help to contain a security incident by cutting off any communication or interaction between the instance and other systems or networks, which may stop any malicious or unauthorized activity or access.

NEW QUESTION 188
- (Topic 1)
A systems administrator needs to configure SSO authentication in a hybrid cloud environment.
Which of the following is the BEST technique to use?

A. Access controls
B. Federation
C. Multifactor authentication
D. Certificate authentication

Answer: B

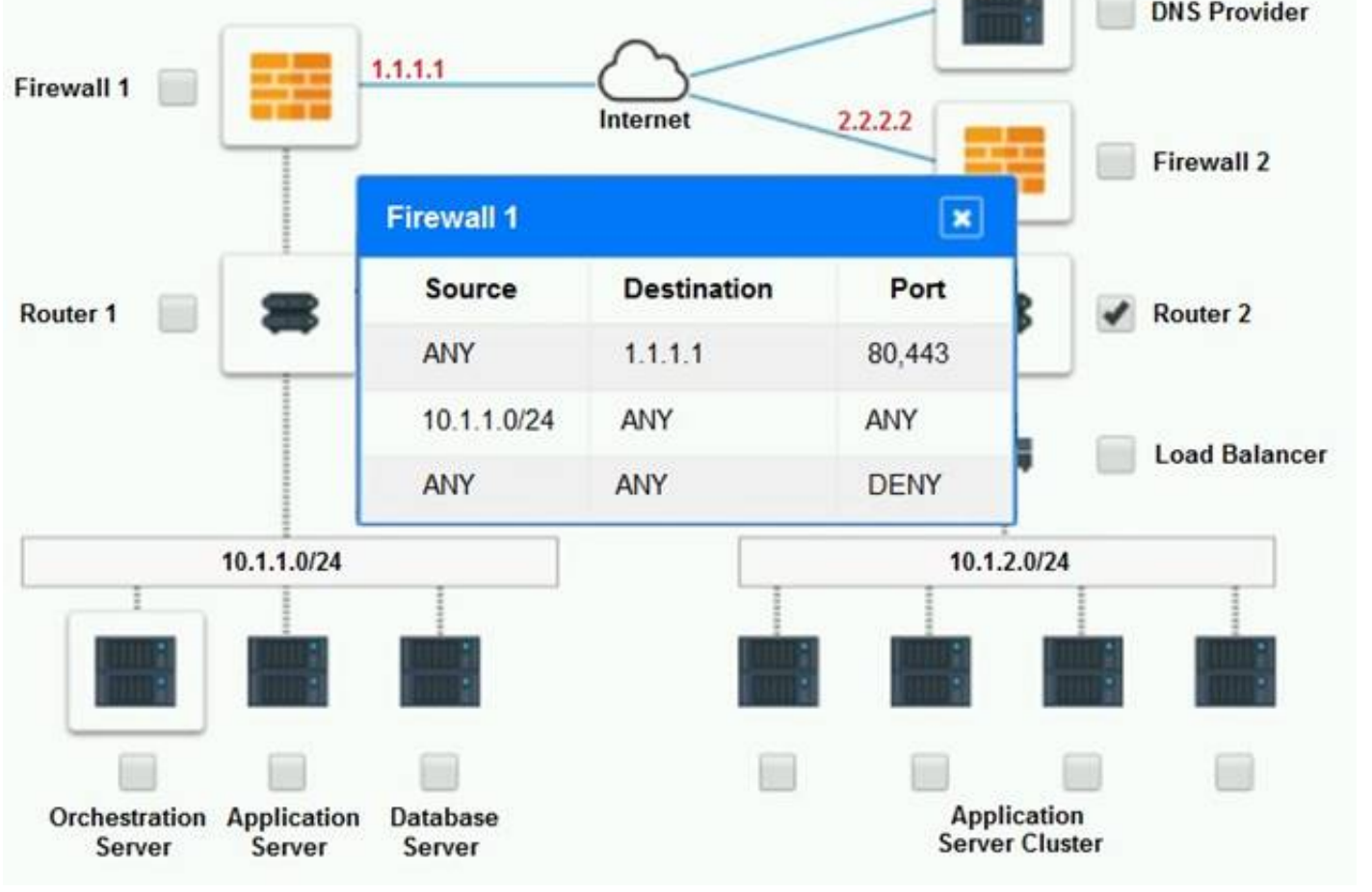
Explanation:
Federation is a type of authentication mechanism that allows users to access multiple systems or applications across different domains or organizations with a single login credential. Federation can help configure SSO authentication in a hybrid cloud environment, as it can enable seamless and secure access to cloud-based and on- premises resources using the same identity provider and authentication method. Federation can also improve user convenience, productivity, and security, as it can simplify the login process, reduce login errors, and enhance password management.
References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

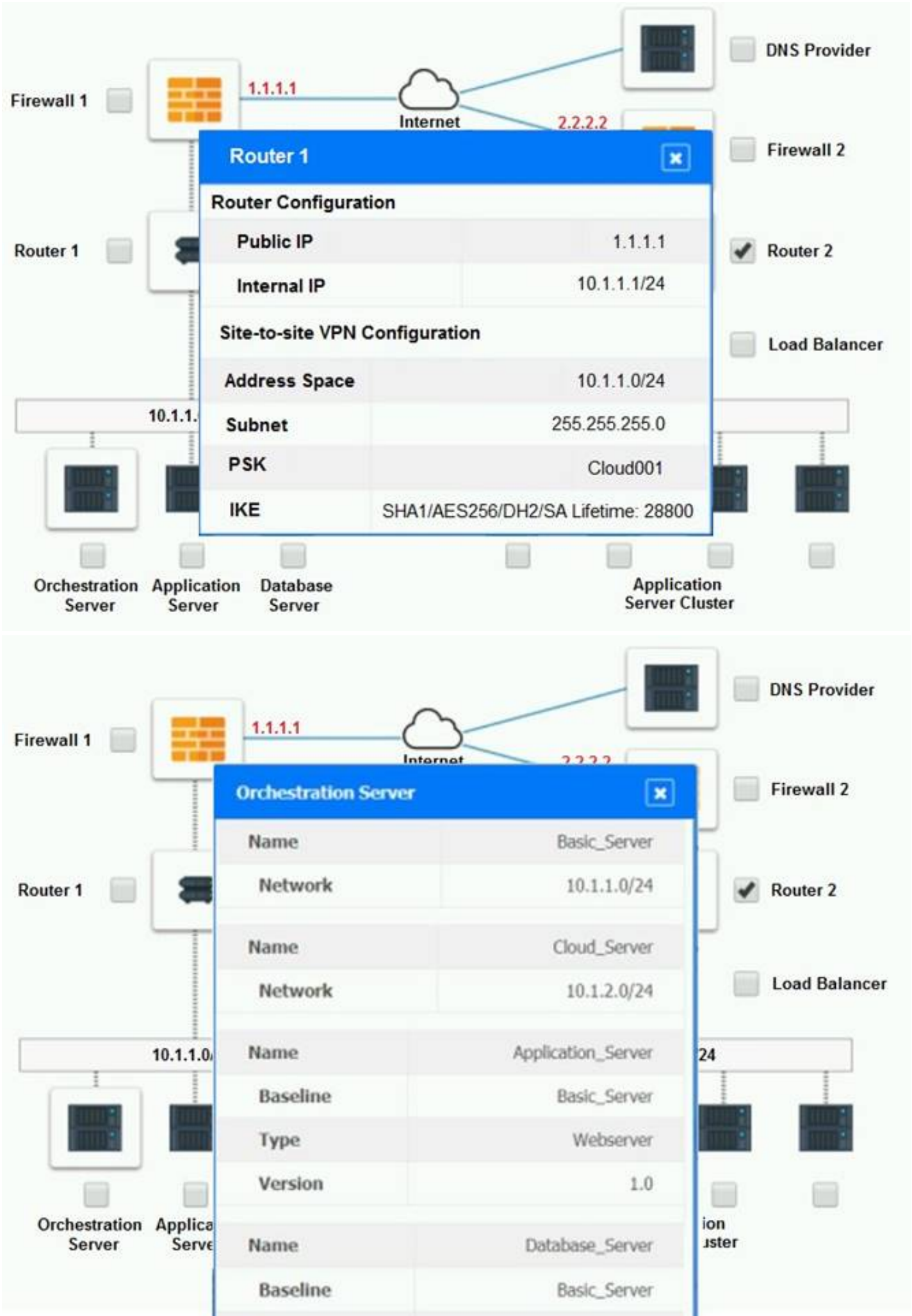
NEW QUESTION 190
SIMULATION - (Topic 1)
A company has decided to scale its e-commerce application from its corporate datacenter to a commercial cloud provider to meet an anticipated increase in demand during an upcoming holiday.
The majority of the application load takes place on the application server under normal conditions. For this reason, the company decides to deploy additional

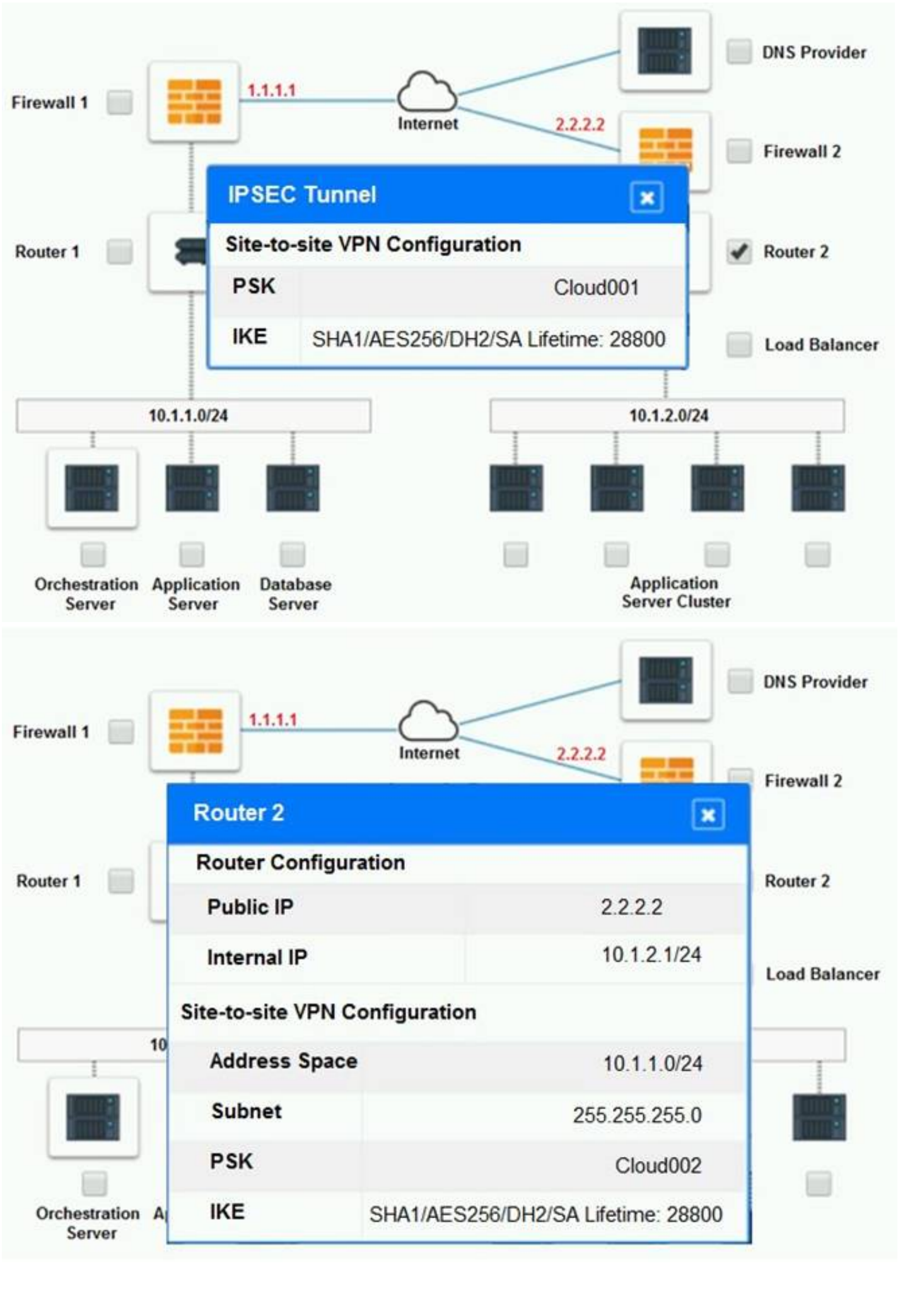
application servers into a commercial cloud provider using the on-premises orchestration engine that installs and configures common software and network configurations.
The remote computing environment is connected to the on-premises datacenter via a site- to-site IPSec tunnel. The external DNS provider has been configured to use weighted round-robin routing to load balance connections from the Internet.
During testing, the company discovers that only 20% of connections completed successfully.
INSTRUCTIONS
Review the network architecture and supporting documents and fulfill these requirements: Part 1:
- Analyze the configuration of the following components: DNS, Firewall 1, Firewall 2, Router 1, Router 2, VPN and Orchestrator Server.
- Identify the problematic device(s).

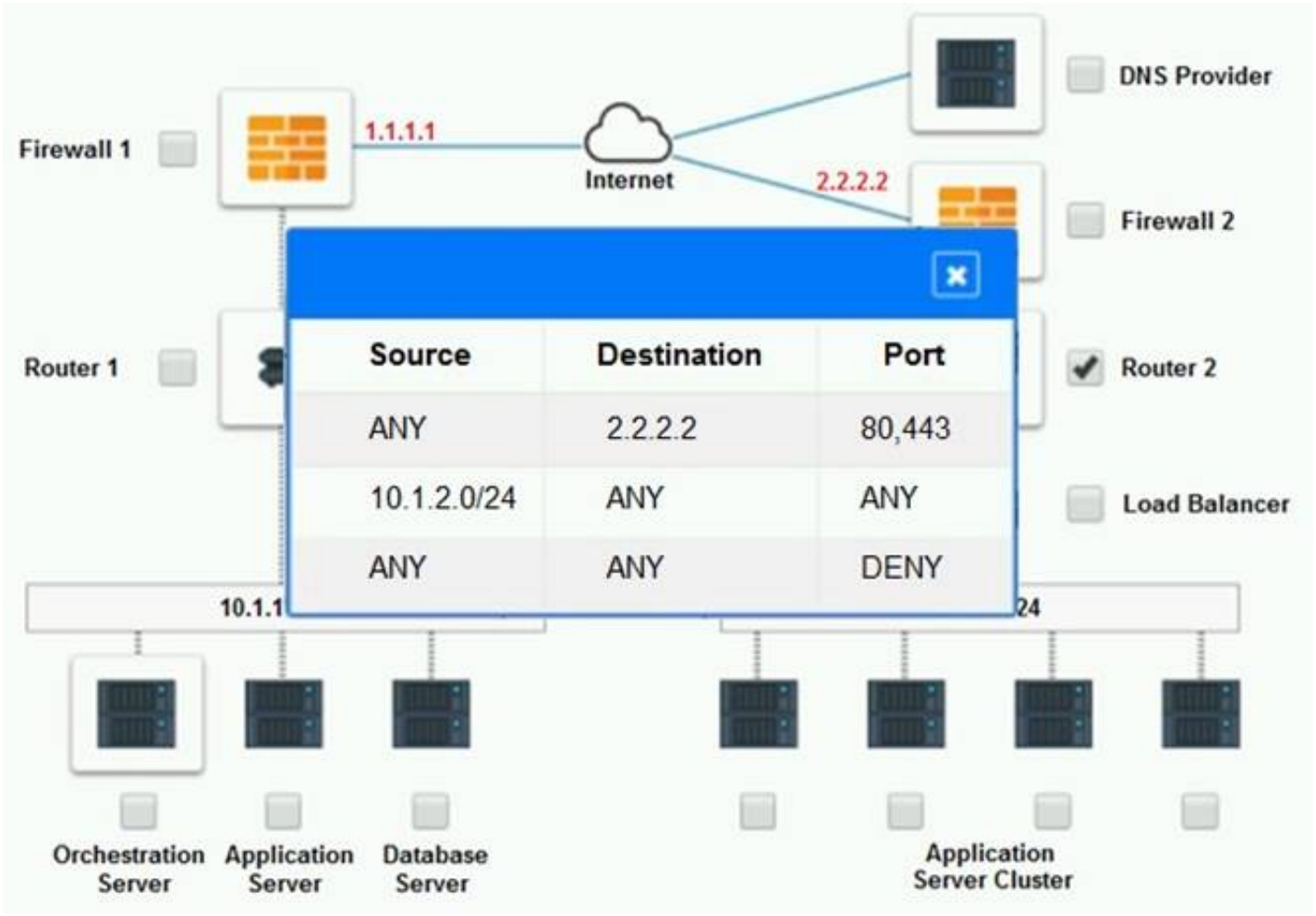
Part 2:
- Identify the correct options to provide adequate configuration for hybrid cloud architecture.

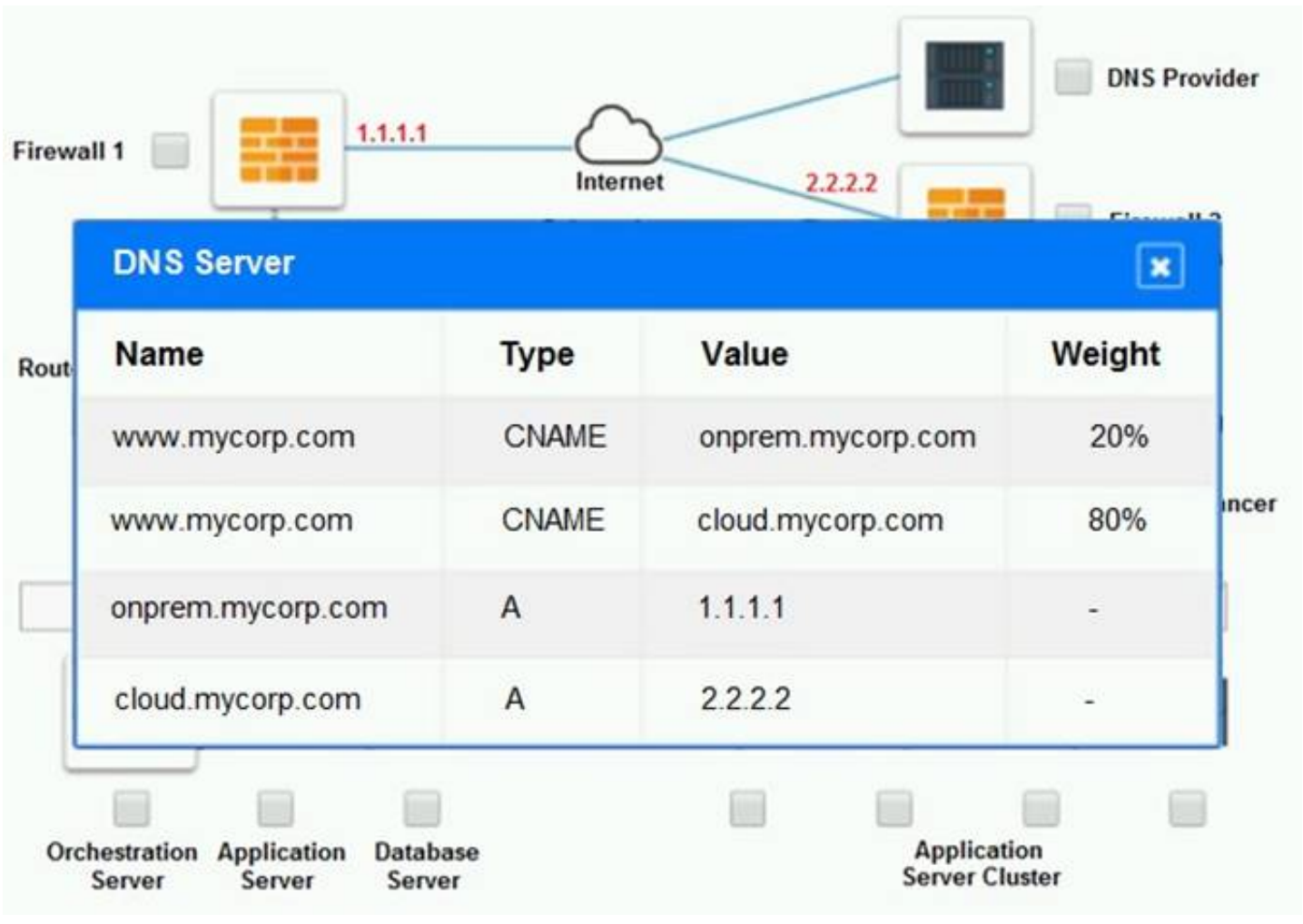
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.
Part 1:
Cloud Hybrid Network Diagram




Firewall 1
1.1.1.1
Internet
2.2.2.2
DNS Provider
Firewall 2
Router 1
Router 2
Load Balancer
Router 1
Public IP 1.1.1.1
Internal IP 10.1.1.1/24
Site-to-site VPN Configuration
Address Space 10.1.1.0/24
Subnet 255.255.255.0
PSK Cloud001
IKE SHA1/AES256/DH2/SA Lifetime: 28800
Orchestration Server
Application Server
Database Server
Application Server Cluster
Orchestration Server
Name Basic_Server
Network 10.1.1.0/24
Name Cloud_Server
Network 10.1.2.0/24
Name Application_Server
Baseline Basic_Server
Type Webserver
Version 1.0
Name Database_Server
Baseline Basic_Server
Type Database Server
Version 1.0
Name Corporate_Datacenter
Baseline Application_Server
Count 1
Name Cloud_Service_Provider
Baseline Cloud_Server
Count 4


Firewall 1
1.1.1.1
Internet
2.2.2.2
DNS Provider
Firewall 2
IPSEC Tunnel
Site-to-site VPN Configuration
PSK
Cloud001
IKE
SHA1/AES256/DH2/SA Lifetime: 28800
Router 1
Router 2
Load Balancer
10.1.1.0/24
10.1.2.0/24
Orchestration Server
Application Server
Database Server
Application Server Cluster
Router 2
Router Configuration
Public IP
2.2.2.2
Internal IP
10.1.2.1/24
Site-to-site VPN Configuration
Address Space
10.1.1.0/24
Subnet
255.255.255.0
PSK
Cloud002
IKE
SHA1/AES256/DH2/SA Lifetime: 28800





Part 2:
Only select a maximum of TWO options from the multiple choice question

- ☐ Deploy a Replica of the Database Server in the Cloud Provider.
- ☐ Update the PSK (Pre-shared key) in Router 2.
- ☐ Update the A record on the DNS from 2.2.2.2 to 1.1.1.1.
- ☐ Promote deny All to allow All in Firewall 1 and Firewall 2.
- ☐ Change the Address Space on Router 2.
- ☐ Change internal IP Address of Router 1.
- ☐ Reverse the Weight property in the two CNAME records on the DNS.
- ☐ Add the Application Server at on-premises to the Load Balancer.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Part 1: Router 2
The problematic device is Router 2, which has an incorrect configuration for the IPSec tunnel. The IPSec tunnel is a secure connection between the on-premises datacenter and the cloud provider, which allows the traffic to flow between the two networks. The IPSec tunnel requires both endpoints to have matching parameters, such as the IP addresses, the pre-shared key (PSK), the encryption and authentication algorithms, and the security associations (SAs) .
According to the network diagram and the configuration files, Router 2 has a different PSK and a different address space than Router 1. Router 2 has a PSK of "1234567890", while Router 1 has a PSK of "0987654321". Router 2 has an address space of 10.0.0.0/8, while Router 1 has an address space of 192.168.0.0/16. These mismatches prevent the IPSec tunnel from establishing and encrypting the traffic between the two networks.
The other devices do not have any obvious errors in their configuration. The DNS provider has two CNAME records that point to the application servers in the cloud provider, with different weights to balance the load. The firewall rules allow the traffic from and to the application servers on port 80 and port 443, as well as the traffic from and to the VPN server on port 500 and port 4500. The orchestration server has a script that installs and configures the application servers in the cloud provider, using the DHCP server to assign IP addresses.
Part 2:
The correct options to provide adequate configuration for hybrid cloud architecture are:
? Update the PSK in Router 2.
? Change the address space on Router 2.
These options will fix the IPSec tunnel configuration and allow the traffic to flow between the on-premises datacenter and the cloud provider. The PSK should match the one on Router 1, which is "0987654321". The address space should also match the one on Router 1, which is 192.168.0.0/16.
* B. Update the PSK (Pre-shared key in Router2)
* E. Change the Address Space on Router2

NEW QUESTION 193
- (Topic 1)
A systems administrator is informed that a database server containing PHI and PII is unencrypted. The environment does not support VM encryption, nor does it have a key management system. The server needs to be able to be rebooted for patching without manual intervention.
Which of the following will BEST resolve this issue?

A. Ensure all database queries are encrypted
B. Create an IPSec tunnel between the database server and its clients
C. Enable protocol encryption between the storage and the hypervisor
D. Enable volume encryption on the storage
E. Enable OS encryption

Answer: D

Explanation:
Volume encryption is a type of encryption that protects data at the storage level by encrypting an entire disk or partition. Volume encryption can provide strong security for data at rest, as it prevents unauthorized access to the data even if the storage device is lost, stolen, or compromised. Volume encryption can also support automatic booting without manual intervention, as it can use a pre-boot authentication mechanism that does not require user input. Enabling volume encryption on the storage is the best way to resolve the issue of having an unencrypted database server containing PHI and PII, as it can protect the sensitive data without relying on VM encryption or a key management
system. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 196
- (Topic 1)
A company is utilizing a private cloud solution that is hosted within its datacenter. The company wants to launch a new business application, which requires the resources below:

Maximum concurrent sessions	Number of nodes required	Required per-node vCPU	Required per-node RAM
1,000	2	4	32
5,000	4	6	64
10,000	6	8	64
25,000	8	8	128

The current private cloud has 30 vCPUs and 512GB RAM available. The company is looking for a quick solution to launch this application, with expected maximum sessions to be close to 24,000 at launch and an average of approximately 5,000 sessions.
Which of the following solutions would help the company accommodate the new workload in the SHORTEST amount of time and with the maximum financial benefits?

A. Configure auto-scaling within the private cloud
B. Set up cloud bursting for the additional resources
C. Migrate all workloads to a public cloud provider
D. Add more capacity to the private cloud

Answer: B

Explanation:
Cloud Bursting can be used for both compute and storage. This question is about compute capability. "Compute Bursting" unleashes the high-performance compute capabilities of the cloud for processing locally created datasets. (reference: https://www.ctera.com/it-initiatives/cloud-bursting/)
https://azure.microsoft.com/en-us/overview/what-is-cloud-bursting/

NEW QUESTION 199
- (Topic 1)
A cloud engineer is responsible for managing two cloud environments from different MSPs. The security department would like to inspect all traffic from the two

cloud environments.
Which of the following network topology solutions should the cloud engineer implement to reduce long-term maintenance?

A. Chain
B. Star
C. Mesh
D. Hub and spoke

Answer: D

Explanation:
Hub and spoke is a type of network topology that consists of a central node or device (hub) that connects to multiple peripheral nodes or devices (spokes). Hub and spoke can help reduce long-term maintenance for managing two cloud environments from different MSPs, as it can simplify and centralize the network configuration and management by using the hub as a single point of contact and control for the spokes. Hub and spoke can also improve network performance and security, as it can reduce latency, bandwidth consumption, and network congestion by routing traffic through the hub. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 203
- (Topic 1)
A cloud architect is designing the VPCs for a new hybrid cloud deployment. The business requires the following:
? High availability
? Horizontal auto-scaling
? 60 nodes peak capacity per region
? Five reserved network IP addresses per subnet
? /24 range
Which of the following would BEST meet the above requirements?

A. Create two /25 subnets in different regions
B. Create three /25 subnets in different regions
C. Create two /26 subnets in different regions
D. Create three /26 subnets in different regions
E. Create two /27 subnets in different regions
F. Create three /27 subnets in different regions

Answer: C

Explanation:
A /26 subnet is a subnet that has a network prefix of 26 bits and a host prefix of 6 bits. A /26 subnet can support up to 64 hosts (62 usable hosts) and has a subnet mask of 255.255.255.192. Creating two /26 subnets in different regions can best meet the business requirements for deploying a high availability, horizontally auto-scaling solution that has a peak capacity of 60 nodes per region and five reserved network IP addresses per subnet. Creating two /26 subnets can provide enough host addresses for the peak capacity and the reserved addresses, as well as allow for some growth or redundancy. Creating the subnets in different regions can provide high availability and horizontal auto- scaling, as it can distribute the workload across multiple locations and scale out or in based on demand. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 206
- (Topic 1)
A systems administrator is troubleshooting network throughput issues following a deployment. The network is currently being overwhelmed by the amount of traffic between the database and the web servers in the environment.
Which of the following should the administrator do to resolve this issue?

A. Set up affinity rules to keep web and database servers on the same hypervisor
B. Enable jumbo frames on the gateway
C. Move the web and database servers onto the same VXLAN
D. Move the servers onto thick-provisioned storage

Answer: C

Explanation:
A virtual extensible local area network (VXLAN) is a type of network virtualization technology that creates logical networks or segments that span across multiple physical networks or locations. Moving the web and database servers onto the same VXLAN can help resolve the network throughput issues following a deployment, as it can reduce the network traffic between the database and the web servers by using a common virtual network identifier (VNI) and encapsulating the traffic within UDP packets. Moving the web and database servers onto the same VXLAN can also improve performance and security, as it can provide higher scalability, isolation, and encryption for the network traffic. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 207
- (Topic 1)
An IaaS application has a two-hour RTO and a four-hour RPO. The application takes one hour to back up its data or restore from a local backup file. A systems administrator is tasked with configuring the backup policy.
Which of the following should the administrator configure to achieve the application requirements with the LEAST cost?

A. Back up to long-term storage every night
B. Back up to object storage every three hours
C. Back up to long-term storage every four hours
D. Back up to object storage every hour

Answer: B

Explanation:
Object storage is a type of storage service that stores data as objects with unique identifiers and metadata in a flat namespace or structure. Backing up to object storage every three hours can help achieve the application requirements with the least cost for an IaaS application that has a two-hour RTO and a four-hour RPO,

as it can provide scalable, durable, and cost-effective storage for backup data while meeting the recovery time and point objectives. Backing up to object storage every three hours can ensure that the backup data is no more than four hours old and can be restored within two hours in case of a disaster or failure. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 209
- (Topic 1)
A systems administrator is reviewing two CPU models for a cloud deployment. Both CPUs have the same number of cores/threads and run at the same clock speed.
Which of the following will BEST identify the CPU with more computational power?

A. Simultaneous multithreading
B. Bus speed
C. L3 cache
D. Instructions per cycle

Answer: D

Explanation:
Instructions per cycle (IPC) is a metric that measures how many instructions a CPU can execute in one clock cycle. IPC can help identify the CPU with more computational power when comparing two CPU models that have the same number of cores/threads and run at the same clock speed, as it indicates the efficiency and performance of the CPU architecture and design. A higher IPC means that the CPU can process more instructions in less time, resulting in faster and better performance. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4
Reference: https://en.wikipedia.org/wiki/Central_processing_unit

NEW QUESTION 210
- (Topic 1)
A systems administrator is deploying a new storage array for backups. The array provides 1PB of raw disk space and uses 14TB nearline SAS drives. The solution must tolerate at least two failed drives in a single RAID set.
Which of the following RAID levels satisfies this requirement?

A. RAID 0
B. RAID 1
C. RAID 5
D. RAID 6
E. RAID 10

Answer: D

Explanation:
RAID 6 is a type of RAID level that uses block-level striping with two parity blocks distributed across all member disks. RAID 6 can provide redundancy and fault tolerance, as it can survive the failure of up to two disks without losing any data. RAID 6 can also support large data sets and high-capacity disks, as it can offer more usable space and better performance than other RAID levels with similar features, such as RAID 5 or RAID 10. RAID 6 is the best RAID level for a systems administrator to use when deploying a new
storage array for backups that provides 1PB of raw disk space and uses 14TB nearline SAS drives and must tolerate at least two failed drives in a single RAID set.
References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 215
- (Topic 1)
A cloud administrator recently noticed that a number of files stored at a SaaS provider’s file-sharing service were deleted. As part of the root cause analysis, the administrator noticed the parent folder permissions were modified last week. The administrator then used a test user account and determined the permissions on the files allowed everyone to have write access.
Which of the following is the best step for the administrator to take NEXT?

A. Identify the changes to the file-sharing service and document
B. Acquire a third-party DLP solution to implement and manage access
C. Test the current access permissions to the file-sharing service
D. Define and configure the proper permissions for the file-sharing service

Answer: D

Explanation:
Permissions are rules or settings that determine what actions users can perform on files or resources in a system or service. Permissions can help control and restrict access to files or resources based on various criteria, such as user identity, role, group, or ownership. Defining and configuring the proper permissions for the file-sharing service is the best step for the administrator to take next after discovering that sales group members can access the financial application due to being part of the finance group and having write access to all files in the file-sharing service. Defining and configuring the proper permissions can prevent unauthorized or accidental access or modification of files or resources by limiting or granting access based on specific criteria.
References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 216
- (Topic 1)
An OS administrator is reporting slow storage throughput on a few VMs in a private IaaS cloud. Performance graphs on the host show no increase in CPU or memory. However, performance graphs on the storage show a decrease of throughput in both IOPS and MBps but not much increase in latency. There is no increase in workload, and latency is stable on the NFS storage arrays that are used by those VMs.
Which of the following should be verified NEXT?

A. Application
B. SAN
C. VM GPU settings
D. Network

Answer: D

Explanation:
The network is the set of devices, connections, protocols, and configurations that enable communication and data transfer between different systems and applications. The network can affect the performance of storage throughput by influencing factors such as bandwidth, latency, jitter, packet loss, and congestion. Poor network performance can result in low storage throughput in both IOPS and MBps, as it can limit the amount and speed of data that can be sent or received by the storage devices. Verifying the network should be the next step for troubleshooting the issue of slow storage throughput on a few VMs in a private IaaS cloud, as it can help identify and resolve any network-related problems that may be causing the issue. References: CompTIA Cloud+ Certification Exam Objectives, page 17, section 3.4

NEW QUESTION 217
- (Topic 1)
A systems administrator is using VMs to deploy a new solution that contains a number of application VMs.
Which of the following would provide high availability to the application environment in case of hypervisor failure?

A. Anti-affinity rules
B. Cold migration
C. Live migration
D. Affinity rules

Answer: A

Explanation:
Anti-affinity rules are rules or policies that prevent two or more VMs from running on the same host or cluster in a cloud environment. Anti-affinity rules can provide high availability to an application environment in case of hypervisor failure, as they can distribute or separate the application VMs across different hosts or clusters and avoid having a single point of failure. Anti-affinity rules can also improve performance and reliability, as they can reduce contention and load by balancing the resource utilization across multiple hosts or clusters. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5
Reference: https://www.vmware.com/products/vsphere/high-availability.html

NEW QUESTION 221
- (Topic 1)
A systems administrator for an e-commerce company will be migrating the company's main website to a cloud provider. The principal requirement is that the website must be highly available.
Which of the following will BEST address this requirement?

A. Vertical scaling
B. A server cluster
C. Redundant switches
D. A next-generation firewall

Answer: B

Explanation:
A server cluster is a group of servers that work together to provide high availability, load balancing, and scalability for applications or services. A server cluster can help ensure the high availability requirement for migrating an e-commerce company's main website to a cloud provider, as it can prevent downtime or disruption in case of a server failure or outage by automatically switching the workload to another server in the cluster. A server cluster can also improve performance and reliability, as it can distribute the workload across multiple servers and handle increased traffic or demand. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5

NEW QUESTION 224
- (Topic 1)
A marketing team is using a SaaS-based service to send emails to large groups of potential customers. The internally managed CRM system is configured to generate a list of target customers automatically on a weekly basis, and then use that list to send emails to each customer as part of a marketing campaign. Last week, the first email campaign sent emails successfully to 3,000 potential customers. This week, the email campaign attempted to send out 50,000 emails, but only 10,000 were sent.
Which of the following is the MOST likely reason for not sending all the emails?

A. API request limit
B. Incorrect billing account
C. Misconfigured auto-scaling
D. Bandwidth limitation

Answer: A

Explanation:
An API request limit is a restriction on the number of requests that can be made to a web service or application programming interface (API) within a certain time period. API request limits are often used by SaaS-based services to control the usage and traffic of their customers and prevent overloading or abuse of their resources. An API request limit can cause a failure to send all the emails if the marketing team exceeds the number of requests allowed by the SaaS-based service in a week. The service may reject or block any requests that go beyond the limit, resulting in fewer emails being sent than expected. References: CompTIA Cloud+ Certification Exam Objectives, page 13, section 2.5
Reference: https://developers.google.com/analytics/devguides/config/mgmt/v3/limits- quotas

NEW QUESTION 229
- (Topic 1)
Lateral-moving malware has infected the server infrastructure.
Which of the following network changes would MOST effectively prevent lateral movement in the future?

A. Implement DNSSEC in all DNS servers
B. Segment the physical network using a VLAN

C. Implement microsegmentation on the network
D. Implement 802.1X in the network infrastructure

Answer: C

Explanation:
Microsegmentation is a type of network security technique that divides a network into smaller logical segments or zones based on workload or application characteristics and applies granular policies and rules to control and isolate traffic within each segment or zone. Implementing microsegmentation on the network can help prevent lateral movement in the future after lateral-moving malware has infected the server infrastructure, as it can limit the exposure and spread of malware by restricting access and communication between different segments or zones based on predefined criteria such as identity, role, or behavior. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 233
- (Topic 1)
A systems administrator is configuring a storage array.
Which of the following should the administrator configure to set up mirroring on this array?

A. RAID 0
B. RAID 1
C. RAID 5
D. RAID 6

Answer: B

Explanation:
RAID 1 is a type of RAID level that creates an exact copy or mirror of data on two or more disks. RAID 1 can provide redundancy and fault tolerance, as it can survive the failure of one disk without losing any data. RAID 1 can also improve read performance, as it can access data from multiple disks simultaneously. The administrator should configure RAID 1 to set up mirroring on a storage array. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 238
- (Topic 1)
The human resources department was charged for a cloud service that belongs to another department. All other cloud costs seem to be correct.
Which of the following is the MOST likely cause for this error?

A. Misconfigured templates
B. Misconfigured chargeback
C. Incorrect security groups
D. Misconfigured tags

Answer: D

Explanation:
Tags are metadata or labels that can be assigned to cloud resources or services to identify and organize them based on various criteria, such as name, purpose, owner, or cost center. Tags can help track the costs for each business unit or department that uses cloud services, as they can enable granular and accurate billing and reporting based on the tags. Misconfigured tags can cause the issue of inaccurate cost tracking for different businesses, as they can result in incorrect or missing billing information or reports. The issue can be resolved by configuring the tags properly to reflect the correct business unit or department for each cloud resource or service. References: CompTIA Cloud+ Certification Exam Objectives, page 13, section 2.5

NEW QUESTION 241
- (Topic 1)
A company developed a product using a cloud provider’s PaaS platform and many of the platform-based components within the application environment.
Which of the following would the company MOST likely be concerned about when utilizing a multicloud strategy or migrating to another cloud provider?

A. Licensing
B. Authentication providers
C. Service-level agreement
D. Vendor lock-in

Answer: D

Explanation:
Vendor lock-in is a situation where a customer becomes dependent on a specific vendor for products or services and faces high switching costs or barriers when trying to change vendors. Vendor lock-in is most likely to be a concern for a company that developed a product using a cloud provider’s PaaS platform and many of the platform- based components within the application environment when utilizing a multicloud strategy or migrating to another cloud provider, as it can limit the flexibility, scalability, and portability of the product and increase the complexity, risk, and cost of moving or integrating with other cloud platforms or providers. References: CompTIA Cloud+ Certification Exam Objectives, page 8, section 1.2

NEW QUESTION 245
- (Topic 1)
After accidentally uploading a password for an IAM user in plain text, which of the following should a cloud administrator do FIRST? (Choose two.)

A. Identify the resources that are accessible to the affected IAM user
B. Remove the published plain-text password
C. Notify users that a data breach has occurred
D. Change the affected IAM user’s password
E. Delete the affected IAM user

Answer: BD

Explanation:
Removing the published plain-text password and changing the affected IAM user's password are the first actions that a cloud administrator should take after accidentally uploading a password for an IAM user in plain text, as they can prevent or limit any unauthorized or malicious access to the cloud resources or services using the compromised password. Removing the published plain-text password can ensure that the password is not exposed or available to anyone who may access or view the uploaded file. Changing the affected IAM user's password can ensure that the password is updated and secured using encryption or hashing techniques. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 250
- (Topic 1)
An organization has multiple VLANs configured to segregate the network traffic. Following is the breakdown of the network segmentation:
? Production traffic (10.10.0.0/24)
? Network backup (10.20.0.0/25)
? Virtual IP network (10.20.0.128/25)
The following configuration exists on the server:

Server name	Interface	IP address	Gateway
COMPSRV01	Production	10.10.0.12/24	10.10.0.1
COMPSRV01	Network backup	10.20.0.12/25	10.10.0.1

The backup administrator observes that the weekly backup is failing for this server. Which of the following commands should the administrator run to identify the issue?

A. ROUTE PRINT
B. NETSTAT -A
C. IPCONFIG /ALL
D. NET SM

Answer: A

Explanation:
ROUTE PRINT is a command that displays the routing table of a system, which shows the destination network, the gateway, the interface, and the metric for each route. ROUTE PRINT can help identify the issue of the weekly backup failing for this server, as it can show if there is a valid route to the network backup segment (10.20.0.0/25) from the production traffic segment (10.10.0.0/24). If there is no route or an incorrect route, the backup will fail to reach the destination. The administrator can use ROUTE PRINT to verify and troubleshoot the routing configuration of the server. References: CompTIA Cloud+ Certification Exam Objectives, page 16, section 3.2
Reference: https://www.toolbox.com/tech/operating-systems/blogs/using-the-route-print- command-in- windows-7-022310/

NEW QUESTION 252
- (Topic 4)
A cloud administrator is evaluating a solution that will limit access to authorized individuals. The solution also needs to ensure the system that connects to the environment meets patching, antivirus, and configuration requirements. Which of the following technologies would BEST meet these requirements?

A. NAC
B. EDR
C. IDS
D. HIPS

Answer: A

Explanation:

NAC (Network Access Control) is a technology that will limit access to authorized individuals and ensure the system that connects to the environment meets patching, antivirus, and configuration requirements. NAC can enforce policies and rules that define who, what, when, where, and how a device or a user can access a network or a cloud environment. NAC can also inspect and evaluate the security posture and compliance status of a device or a user before granting or denying access. For example, NAC can check if the device has the latest patches, antivirus software, and configuration settings, and if not, it can quarantine, remediate, or reject the device. NAC can also monitor and audit the ongoing network activity and behavior of the devices and users, and take actions if any violations or anomalies are detected.

NEW QUESTION 253
- (Topic 4)
A cloud engineer is deploying a server in a cloud platform. The engineer reviews a security scan report. Which of the following recommended services should be disabled? (Select two).

A. Telnet
B. FTP
C. Remote log-in
D. DNS
E. DHCP
F. LDAP

Answer: AB

Explanation:
Telnet and FTP are recommended services to be disabled when deploying a server in a cloud platform, as they are insecure protocols that transmit data in plain text and expose credentials and sensitive information to potential attackers12. Remote log-in, DNS, DHCP, and LDAP are not necessarily recommended to be disabled, as they may provide useful functionality for the server and the cloud environment. However, they should be configured properly and secured with encryption, authentication, and authorization mechanisms34.
References: CompTIA Cloud+ CV0-003 Exam Objectives, Objective 4.2: Given a scenario, apply security configurations and compliance controls ; CompTIA Quick Start Guide to Tackling Cloud Security Concerns3

NEW QUESTION 258
- (Topic 4)
As a result of an IT audit, a customer has decided to move some applications from an old legacy system to a private cloud. The current server location is remote with low bandwidth. Which of the following is the best migration strategy to use for this deployment?

A. P2V with physical data transport
B. P2P with remote data copy
C. V2V with physical data transport
D. V2P with physical data transport
E. V2P with remote data copy

Answer: A

Explanation:
P2V stands for physical to virtual, which is the process of converting a physical server into a virtual machine. This is a common migration strategy for moving legacy systems to the cloud, as it preserves the existing configuration and data of the server. Physical data transport means using a physical device, such as a hard disk drive or a USB flash drive, to transfer the data from the source location to the destination location. This method is suitable for remote locations with low bandwidth, as it avoids the network latency and congestion that may occur with remote data copy. P2P, V2V, and V2P are other types of migration strategies, but they are not applicable for this scenario. P2P stands for physical to physical, which is the process of moving a physical server to another physical server. V2V stands for virtual to virtual, which is the process of moving a virtual machine to another virtual machine. V2P stands for virtual to physical, which is the process of converting a virtual machine into a physical server. Remote data copy means using a network connection, such as FTP or SCP, to transfer the data from the source location to the destination location. This method is suitable for locations with high bandwidth and reliable network connectivity. References: CompTIA Cloud+ CV0-003 Certification Study Guide, Chapter 21, Cloud Migration, page 3371.

NEW QUESTION 263
- (Topic 4)
A company uses multiple SaaS-based cloud applications. All the applications require authentication upon access. An administrator has been asked to address this issue and enhance security. Which of the following technologies would be the BEST solution?

A. Single sign-on
B. Certificate authentication
C. Federation
D. Multifactor authentication

Answer: A

Explanation:
Single sign-on (SSO) is a technology that allows a user to access multiple applications or services with a single login and authentication process. SSO can enhance security by reducing the number of passwords that a user has to remember and enter, and by enabling centralized management and enforcement of security policies .
SSO can help address the issue of multiple SaaS-based cloud applications requiring authentication upon access. By implementing SSO, an administrator can:
Simplify the user experience and increase productivity by eliminating the need to enter multiple usernames and passwords for different applications .
Improve the security and compliance of the applications by using a trusted identity provider (IdP) that can verify the user's identity and credentials, and grant or deny access based on predefined rules .
Reduce the risk of password breaches, phishing, or identity theft by minimizing the exposure of passwords to third-party applications or malicious actors .

NEW QUESTION 264
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