CompTIA

Exam Questions CV0-004

CompTIA Cloud+

NEW QUESTION 1
A cloud administrator recently created three servers in the cloud. The goal was to create ACLs so the servers could not communicate with each other. The servers were configured
with the following IP addresses:

	Server 1	Server 2	Server 3
IP address	172.16.12.7	172.16.12.14	172.16.13.4
Subnet mask	255.255.255.240	255.255.255.240	255.255.255.240
Default gateway	172.16.12.1	172.16.12.17	172.16.13.15

After implementing the ACLs, the administrator confirmed that some servers are still able to reach the other servers. Which of the following should the administrator change to
prevent the servers from being on the same network?

A. The IP address of Server 1 to 172.16.12.36
B. The IP address of Server 1 to 172.16.12.2
C. The IP address of Server 2 to 172.16.12.18
D. The IP address of Server 2 to 172.16.14.14

Answer: B

Explanation:
To prevent the servers from being on the same network and communicating with each other, the administrator should change the IP address of Server 1 to 172.16.12.2. This IP address is outside the subnet defined by the subnet mask 255.255.255.240, which would place Server 1 on a different subnet, preventing direct communication without routing. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 2
A cross-site request forgery vulnerability exploited a web application that was hosted in a public IaaS network. A security engineer determined that deploying a WAF in blocking mode at a CDN would prevent the application from being exploited again. However, a week after implementing the WAF, the application was exploited again. Which of the following should the security engineer do to make the WAF control effective?

A. Configure the DDoS protection on the CDN.
B. Install endpoint protection software on the VMs
C. Add an ACL to the VM subnet.
D. Deploy an IDS on the IaaS network.

Answer: C

Explanation:
After a WAF deployment fails to prevent an exploit, adding an Access Control List (ACL) to the Virtual Machine (VM) subnet can be an effective control. ACLs provide an additional layer of security by explicitly defining which traffic can or cannot enter a network segment. By setting granular rules based on IP addresses, protocols, and ports, ACLs help to restrict access to resources, thereby mitigating potential exploits and enhancing the security of the IaaS network.References: CompTIA Cloud+ materials cover
governance, risk, compliance, and security for the cloud, including the implementation of network security controls like ACLs, to protect cloud environments from unauthorized access and potential security threats.

NEW QUESTION 3
A cloud engineer is running a latency-sensitive workload that must be resilient and highly available across multiple regions. Which of the following concepts best addresses these
requirements?

A. Cloning
B. Clustering
C. Hardware passthrough
D. Stand-alone container

Answer: B

Explanation:
Clustering refers to the use of multiple servers/computers to form what appears to be a single system. This concept is key for achieving high availability and resilience, especially for latency-sensitive workloads. By distributing the workload across a cluster that spans multiple regions, the system can continue to operate even if one or more nodes fail, thus maintaining performance and availability. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 4
A security engineer Identifies a vulnerability m a containerized application. The vulnerability can be exploited by a privileged process to read tie content of the host's memory. The security engineer reviews the following Dockerfile to determine a solution to mitigate similar exploits:

Which of the following is the best solution to prevent similar exploits by privileged processes?

A. Adding the USER myappuserinstruction
B. Patching the host running the Docker daemon
C. Changing FROM alpiner3.17 to FROM alpine:latest
D. Running the container with the ready-only filesystem configuration

Answer: A

Explanation:
Adding the "USER myappuser" instruction to the Dockerfile is the best solution to prevent similar exploits by privileged processes. This instruction ensures that the container runs as a non-privileged user instead of the root user, significantly reducing the risk of privileged exploits. Running containers with least privilege principles minimizes the potential impact of vulnerabilities, enhancing the overall security posture of the containerized environment.References: The CompTIA Cloud+ framework includes security concerns, measures, and concepts for cloud operations, highlighting the importance of container security practices, such as running containers as non-root users to prevent unauthorized access and exploitation.

NEW QUESTION 5
A systems administrator is configuring backups on a VM and needs the process to run as quickly as possible, reducing the bandwidth on the network during all times from Monday through Saturday. In the event of data corruption, the management team expects the mean time to recovery to be as low as possible. Which of the following backup methods can the administrator use to accomplish these goals?

A. Incremental backup daily to the cloud
B. Full backup on Sunday and incremental backups on all other days of the week
C. Differential backup daily to the cloud
D. Incremental backups during off-hours on Monday, Wednesday, and Friday

Answer: B

Explanation:
To achieve a quick backup process and reduce bandwidth use, the administrator should perform a Full backup on Sunday and incremental backups on all other days of the week. This method ensures that only the changes made since the last full backup are copied, reducing the amount of data that needs to be transferred each time, and thus the time and bandwidth required.References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 6
A DevOps engineer is integrating multiple systems. Each system has its own API that exchanges data based on different application-level transactions. Which of the following delivery mechanisms would best support this integration?

A. Enterprise service bus
B. Socket
C. RPC
D. Queue

Answer: A

Explanation:
An Enterprise Service Bus (ESB) is designed to facilitate application integration by providing a centralized architecture for high-level, message-based, and event-driven communication between different systems. It is particularly well-suited for integrating multiple systems with their own APIs because it can handle various data formats and protocols, enabling different applications to communicate with each other seamlessly. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

NEW QUESTION 7
A systems administrator notices a surge of network traffic is coming from the monitoring server. The administrator discovers that large amounts of data are being downloaded to an external source. While investigating, the administrator reviews the following logs:

Protocol	Local address	Foreign address	State
TCP	10.181.12.5:20	172.17.250.12	ESTABLISHED
TCP	10.181.12.5:22	172.32.58.39	ESTABLISHED
TCP	10.181.12.5:443	172.30.252.204	ESTABLISHED
TCP	10.181.12.5:4443	10.11.15.82	ESTABLISHED
TCP	10.181.12.5:8048	172.24.255.192	TIME_WAIT

Which of the following ports has been compromised?

A. Port 20
B. Port 22
C. Port 443
D. Port 4443
E. Port 8048

Answer: E

Explanation:
Based on the logs provided, the port that has been compromised is Port 8048. The state "TIME_WAIT" indicates that this port was recently used to establish a connection that has now ended. This could be indicative of the recent activity where large amounts of data were downloaded to an external source, suggesting a potential security breach. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 8
Which of the following requirements are core considerations when migrating a small business's on-premises applications to the cloud? (Select two).

A. Availability
B. Hybrid
C. Testing
D. Networking
E. Compute
F. Logs

Answer: AD

Explanation:
When migrating on-premises applications to the cloud for a small business, availability and networking are core considerations. Ensuring that applications are available and that the network is capable of handling the new cloud traffic are pivotal for a successful transition.References: The migration process and its core considerations, including availability and networking, are topics within the Business Principles of Cloud Environments in the CompTIA Cloud+ material.

NEW QUESTION 9
An IT manager is migrating the production environment to the cloud but needs to keep control of the operating systems, patches, and settings of all resources. Which of the following deployment models will best meet the requirements?

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

Answer: C

Explanation:
Infrastructure as a Service (IaaS) is the deployment model that will best meet the requirements of retaining control over the operating systems, patches, and settings of all resources. IaaS provides the cloud infrastructure but leaves the management of the operating system and applications to the user.References: The cloud service models and the level of control they offer are fundamental topics in the CompTIA Cloud+ certification material.

NEW QUESTION 10
A company has decided to adopt a microservices architecture for its applications that are deployed to the cloud. Which of the following is a major advantage of this type of architecture?

A. Increased security
B. Simplified communication
C. Reduced server cost
D. Rapid feature deployment

Answer: D

Explanation:
A major advantage of adopting a microservices architecture is rapid feature deployment. Microservices allow for independent development, deployment, and

scaling of individual service components, enabling teams to bring new features to market more quickly and efficiently compared to monolithic architectures.References: The CompTIA Cloud+ certification covers cloud design aspects, including architectural models like microservices, emphasizing their role in facilitating agile development practices and rapid feature release cycles in cloud environments.

NEW QUESTION 10
A company needs to deploy its own code directly in the cloud without provisioning additional infrastructure. Which of the following is the best cloud service model for the company to use?

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

Answer: A

Explanation:
Platform as a Service (PaaS) is the best cloud service model for deploying code directly in the cloud without provisioning additional infrastructure. PaaS provides a platform allowing customers to develop, run, and manage applications without the
complexity of building and maintaining the infrastructure.References: The PaaS model and its benefits for application deployment are covered under the Cloud Concepts domain in the CompTIA Cloud+ certification.

NEW QUESTION 13
Which of the following is the most cost-effective way to store data that is infrequently accessed?

A. Cold site
B. Hot site
C. Off-site
D. Warm site

Answer: C

Explanation:
The most cost-effective way to store data that is infrequently accessed is typically an off-site storage service, often referred to as cold or archival storage. This type of storage is designed for data that is rarely accessed, providing lower storage costs.References: Data storage solutions and their cost implications, including off-site (cold or archival) storage for infrequently accessed data, are part of the cloud storage options discussed in CompTIA Cloud+.

NEW QUESTION 18
A cloud developer needs to update a REST API endpoint to resolve a defect. When too many users attempt to call the API simultaneously, the following message is displayed:
Error: Request Timeout - Please Try Again Later
Which of the following concepts should the developer consider to resolve this error?

A. Server patch
B. TLS encryption
C. Rate limiting
D. Permission issues

Answer: C

Explanation:
To resolve the issue of a REST API endpoint timing out when too many users attempt to call the API simultaneously, the developer should consider implementing rate limiting. Rate limiting controls the number of requests a user can submit in a given amount of time, preventing overuse of the API resources and ensuring availability for all users. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Service Maintenance and Management

NEW QUESTION 21
A cloud engineer wants to implement a disaster recovery strategy that:
. Is cost-effective.
. Reduces the amount of data loss in case of a disaster.
. Enables recovery with the least amount of downtime.
Which of the following disaster recovery strategies best describes what the cloud engineer wants to achieve?

A. Cold site
B. Off site
C. Warm site
D. Hot site

Answer: D

Explanation:
A hot site is a disaster recovery strategy that is cost-effective, minimizes data loss, and allows for the fastest recovery time in case of a disaster. It is an exact replica of the original site of the organization, with full computer systems as well as near-complete backups of user data. Hot sites are operational 24/7 and can take over functionality from the primary site immediately or with minimal delay. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Disaster Recovery

NEW QUESTION 23
A cloud engineer is provisioning a new application that requires access to the organization's public cloud resources. Which of the following is the best way for the cloud engineer to authenticate the application?

A. Access key
B. API
C. MFA token
D. Username and Password

Answer: A

Explanation:
The best way to authenticate an application requiring access to an organization's public cloud resources is through the use of an access key. Access keys provide a secure means of authentication for applications and services without the need for interactive login credentials. This method is particularly useful for automated processes or applications that need to interact with cloud services programmatically, ensuring secure and efficient access control.References: CompTIA Cloud+ content emphasizes the importance of secure authentication mechanisms, such as access keys, in managing and securing access to cloud resources, aligning with best practices for cloud security and application deployment.

NEW QUESTION 26
A network administrator is budding a site-to-site VPN tunnel from the company's headquarters office 10 the company's public cloud development network. The network administrator confirms the following:
The VPN tunnel is established on the headquarter office firewall.
While inside the office, developers report that they cannot connect to the development network resources.
While outside the office on a client VPN, developers report that they can connect to the development network resources.
The office and the client VPN have different IP subnet ranges.
The firewall flow logs show VPN traffic is reaching the development network from the office. Which of the following is the next step the next network administrator should take to troubleshoot the VPN tunnel?

A. Review the development network routing table.
B. Change the ciphers on the site-to-site VPN.
C. Restart the site-to-site VPN tunnel.
D. Check the ACLS on the development workloads

Answer: A

Explanation:
The next step in troubleshooting the VPN tunnel issue is to review the development network routing table. This action will help determine if the routing configurations are correctly directing traffic from the headquarters office through the VPN tunnel to the development network resources. Proper routing ensures that data packets find their way to the correct destinationwithin the cloud environment, which is critical for establishing successful communication between different network segments.References: CompTIA Cloud+ materials stress the importance of networking fundamentals in cloud environments, including VPN configurations and routing, to ensure secure and efficient connectivity between on-premises infrastructure and cloud resources.

NEW QUESTION 27
For compliance purposes, a cloud developer at an insurance company needs to save all customer policies for more than ten years. Which of the following options is the most cost-efficient tier to save the data in the cloud?

A. Archive
B. Hot
C. Cold
D. Warm

Answer: A

Explanation:
For compliance purposes, saving customer policies for more than ten years most cost-efficiently can be achieved by using the Archive storage tier. Archive or archival storage is designed for data that needs to be retained over the long term but accessed infrequently. It is generally the most cost-effective storage tier for this type of data. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 29
A company's engineering department is conducting a month-long test on the scalability of an in-house-developed software that requires a cluster of 100 or more servers. Which of the following models is the best to use?

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

Answer: D

Explanation:
For testing the scalability of an in-house-developed software that requires a cluster of 100 or more servers, Infrastructure as a Service (IaaS) is the best model. IaaS provides the necessary computeresources and allows the engineering department to configure the environment as needed for their specific test without the constraints that might be present in PaaS or SaaS offerings. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Service Models

NEW QUESTION 32
A company just learned that the data in its object storage was accessed by an unauthorized party. Which of the following should the company have done to make the data unusable?

A. The company should have switched from object storage to file storage.
B. The company should have hashed the data.
C. The company should have changed the file access permissions.
D. The company should have encrypted the data at rest.

Answer: D

Explanation:
Encrypting the data at rest is a crucial security measure to make the data unusable to unauthorized parties. If the object storage data was accessed by an unauthorized party, having the data encrypted would ensure that the data remains confidential and inaccessible without the proper encryption keys, thus mitigating the impact of the breach.
References: CompTIA Cloud+ resources and data security practices

NEW QUESTION 33
Which of the following best describes a system that keeps all different versions of a software separate from each other while giving access to all of the versions?

A. Code documentation
B. Code control
C. Code repository
D. Code versioning

Answer: D

Explanation:
A system that keeps all different versions of software separate from each other while providing access to all of the versions is best described by Code versioning. Code versioning systems, such as Git, allow developers to keep track of changes, revert to previous states, and manage multiple versions of codebases.References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 38
A company has one cloud-based web server that is prone to downtime during maintenance. Which ot the following should the cloud engineer add to ensure high availability?

A. A redundant web server behind a load balancer
B. A backup cloud web server
C. A secondary network link to the web server
D. An autoscaling feature on the web server

Answer: A

Explanation:
Adding a redundant web server behind a load balancer is the solution that will ensure high availability. If one server goes down for maintenance, the other can take over, ensuring that the web service remains available without interruption.References: High availability concepts, including the use of load balancers and redundant servers, are part of cloud infrastructure design as per CompTIA Cloud+.

NEW QUESTION 42
A cloud administrator wants to provision a host with two VMs. The VMs require the following:

	Host	VM1	VM2
NIC	1Gbps	1Gbps	1Gbps
CPU	4	1	1
RAM	8	2	2
Storage (thin provisioned)	2TB	1.5TB	1.2TB
Storage utilization		22.5%	50%
Daily network traffic		1.2TB	200GB

After configuring the servers, the administrator notices that during certain hours of the day, the performance heavily degrades. Which of the following is the best explanation?

A. The host requires additional physical CPUs.
B. A higher number of processes occur at those times.
C. The RAM on each VM is insufficient.
D. The storage is overutilized.

Answer: C

Explanation:
Given the provided table, the VMs have been allocated 2GB of RAM each, which may be insufficient for their workload, especially during peak hours which could lead to performance degradation. Insufficient RAM can cause the VMs to use swap space on disk, which is significantly slower and can lead to poor performance.

References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg.

NEW QUESTION 44
An IT security team wants to ensure that the correct parties are informed when a specific user account is signed in. Which of the following would most likely allow an administrator to address this concern?

A. Creating an alert based on user sign-in criteria
B. Aggregating user sign-in logs from all systems
C. Enabling the collection of user sign-in logs
D. Configuring the retention of all sign-in logs

Answer: A

Explanation:
To ensure that the correct parties are informed when a specific user account is signed in, the best action is to create an alert based on user sign-in criteria. This alert can notify administrators or security personnel when the specified event occurs.References: Security monitoring and alerting are critical components of managing cloud environments securely, as discussed in the CompTIA Cloud+ certification.

NEW QUESTION 48
A developer at a small startup company deployed some code for a new feature to its public repository. A few days later, a data breach occurred. A security team investigated the incident and found that the database was hacked. Which of the following is the most likely cause of this breach?

A. Database core dump
B. Hard-coded credentials
C. Compromised deployment agent
D. Unpatched web servers

Answer: B

Explanation:
Hard-coded credentials within code, especially when deployed in a public repository, are a common security vulnerability. If credentials such as passwords or API keys are embedded in the code, anyone with access to the repository can potentially use them to gain unauthorized access to databases or other sensitive resources. This is a likely cause of the data breach in the scenario described. References: CompTIA Security+ Guide to Network Security Fundamentals by Mark Ciampa.

NEW QUESTION 52
An organization's security policy states that software applications should not exchange sensitive data in cleartext. The security analyst is concerned about a software application that uses Base64 to encode credit card data. Which of the following would be the best algorithm to replace Base64?

A. 3DES
B. AES
C. RC4
D. SHA-3

Answer: B

Explanation:
AES (Advanced Encryption Standard) is the best algorithm to replace Base64 for secure data exchange. Base64 is an encoding method that is not secure by itself, as it's easily reversible. AES, on the other hand, is a widely used encryption standard that ensures data is protected and is not readable without the correct encryption key.References: Encryption standards and practices, including the use of AES for securing data, are essential knowledge in cloud security covered in CompTIA Cloud+.

NEW QUESTION 57
Which of the following is a direct effect of cloud migration on an enterprise?

A. The enterprise must reorganize the reporting structure.
B. Compatibility issues must be addressed on premises after migration.
C. Cloud solutions will require less resources than on-premises installations.
D. Utility costs will be reduced on premises.

Answer: D

Explanation:
Cloud migration typically results in a reduction of on-premises utility costs because the physical infrastructure requirements, such as power and cooling, are transferred to the cloud provider. This shift can lead to significant savings in utility expenses for the enterprise. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274- 282-2)

NEW QUESTION 60
A cloud deployment uses three different VPCs. The subnets on each VPC need to communicate with the others over private channels. Which of the following will achieve this objective?

A. Deploying a load balancer to send traffic to the private IP addresses
B. Creating peering connections between all VPCs
C. Adding BGP routes using the VPCs' private IP addresses
D. Establishing identical routing tables on all VPCs

Answer: B

Explanation:
To allow subnets on different VPCs to communicate with each other over private channels, the cloud engineer should create peering connections between all the VPCs. VPC Peering allows networks to connect and route traffic using private IP addresses without the need for gateways, VPN connections, or separate physical hardware. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 64
Which of the following can reduce the risk of CI/CD pipelines leaking secrets?

A. Protected Git branches
B. Use of a VM instead of containers
C. Private image repositories
D. Canary tests

Answer: A

Explanation:
Protected Git branches help reduce the risk of CI/CD pipelines leaking secrets by imposing restrictions on who can commit to the branches, enforce status checks before merging, and prevent unauthorized access or changes to sensitive information, such as API keys, passwords, and secret tokens. This ensures that only approved changes can be made to the codebase, and sensitive information is safeguarded.

NEW QUESTION 66
A cloud solutions architect is designing a VM-based solution that requires reducing the cost as much as possible. Which of the following solutions will best satisfy this requirement?

A. Using ephemeral storage on replicated VMs
B. Creating Spot VMs in one availability zone
C. Spreading the VMs across different regions
D. Using provisioned IOPS storage

Answer: B

Explanation:
Using Spot VMs is a cost-effective solution as these are available at significantly reduced prices compared to standard instances. Spot VMs are ideal for workloads that can tolerate interruptions and are a way to take advantage of unused cloud capacity.References: The concept of Spot VMs and their cost benefits are included in the financial aspects of managing cloud resources, as per the CompTIA Cloud+ certification guidelines.

NEW QUESTION 69
A company wants to combine solutions in a central and scalable environment to achieve the following goals:
• Control
• Visibility
• Automation
• Cost efficiency
Which of the following best describes what the company should implement?

A. Batch processing
B. Workload orchestration
C. Containerization
D. Application modernization

Answer: B

Explanation:
Workload orchestration is the best description of what the company should implement to achieve control, visibility, automation, and cost efficiency. It involves using orchestration tools to manage workloads in cloud environments, ensuring resources are used efficiently and operations are automated.References: Workload orchestration is a part of cloud management strategies discussed under the Management and Technical Operations domain in the CompTIA Cloud+ objectives.

NEW QUESTION 72
An engineer made a change to an application and needs to select a deployment strategy that meets the following requirements:
• Is simple and fast
• Can be performed on two Identical platforms
Which of the following strategies should the engineer use?

A. Blue-green
B. Canary
C. Rolling
D. in-place

Answer: A

Explanation:
The blue-green deployment strategy is ideal for scenarios where simplicity and speed are crucial. It involves two identical production environments: one (blue) hosts the current application version, while the other (green) is used to deploy the new version. Once testing is completed on the green environment and it's ready to go live, traffic is switched from blue to green, ensuring a quick and efficient rollout with minimal downtime. This method allows for immediate rollback if issues arise, by simply redirecting the traffic back to the blue environment.References: CompTIA Cloud+ material emphasizes the importance of understanding various cloud deployment strategies, including blue-green, and their application in real-world scenarios to ensure efficient and reliable software deployment in cloud environments.

NEW QUESTION 74
A cloud networking engineer is troubleshooting the corporate office's network configuration. Employees in the IT and operations departments are unable to resolve IP addresses on all devices, and the IT department cannot establish a connection to other departments' subnets. The engineer identifies the following configuration currently in place to support the office network:

Subnet	Department	Employees
10.1.20.1/24	Finance	50
10.1.30.1/24	IT	90
10.1.40.1/24	Legal	30
10.1.50.1/24	Operations	100

Each employee needs to connect to the network with a maximum of three hosts. Each subnet must be segregated, but the IT department must have the ability to communicate with all subnets. Which of the following meet the IP addressing and routing requirements? (Select two).

A. Modifying the subnet mask to 255 255 254.0 for IT and operations departments
B. Configuring static routing to allow access from each subnet to 10.1.40.1
C. Modifying the BYOD policy to reduce the volume of devices that are allowed to connect to the corporate network
D. Configuring static routing to allow access from 10.1.30.1 to each subnet
E. Combining the subnets and increasing the allocation of IP addresses available to support three hosts for each employee
F. Modifying the subnet mask to 255.255.255.128 for the IT and operations departments

Answer: DF

Explanation:
To meet the requirements of allowing the IT department to communicate with all subnets while keeping each department segregated and ensuring a maximum of three hosts per employee, two actions are required. First, configuring static routing from the IT subnet (10.1.30.1) to each of the other subnets would establish the necessary connectivity. Second, modifying the subnet mask to 255.255.255.128 for the IT and operations departments would provide the needed number of host addresses while maintaining subnet segregation.References: This solution is based on networking and subnetting principles, which are part of the foundational knowledge for cloud networking within the CompTIA Cloud+ framework.

NEW QUESTION 75
A security analyst reviews the daily logs and notices the following suspicious activity:

Host	NA/US/John Smith
IP	10.150.71.151
Activity	A powershell process executed compressed, encoded command line content.

The analyst investigates the firewall logs and identities the following:

Operating system	Kali Linux
CPU	x64
Filesystem	ext4
User	John Smith
Category	Compromised - Unauthorized Access
Domain	NA/US
IP	201.101.25.121 (External)
Port	4444
Connection type	Inbound Connection

Which of the following steps should the security analyst take next to resolve this issue? (Select two).

A. Submit an IT support ticket and request Kali Linux be uninstalled from John Smith's computer
B. Block all inbound connections on port 4444 and block the IP address 201.101.25.121.
C. Contact John Smith and request the Ethernet cable attached to the desktop be unplugged
D. Check the running processes to confirm if a backdoor connection has been established.
E. Upgrade the Windows x64 operating system on John Smith's computer to the latest version.
F. Block all outbound connections from the IP address 10.150.71.151.

Answer: BD

Explanation:
Given the suspicious activity and Kali Linux's association with penetration testing and hacking tools, the security analyst should block all inbound connections on port 4444, as it is commonly used for malicious purposes, and block the IP address that's potentially the source of the intrusion. Additionally, checking the running processes on John Smith's computer is crucial to determine if a backdoor or unauthorized connection has been established.References: Incident response and threat mitigation steps such as these are part of the security protocols discussed in the CompTIA Cloud+ certification.

NEW QUESTION 79
A cloud engineer needs to deploy a new version of a web application to 100 servers. In the past, new version deployments have caused outages. Which of the following deployment types should the cloud engineer implement to prevent the outages from happening this time?

A. Rolling
B. Blue-green
C. Canary
D. Round-robin

Answer: C

Explanation:
A canary deployment is a pattern that reduces the risk of introducing a new software version in production by slowly rolling out the change to a small subset of users before rolling it out to the entire infrastructure. It's an effective strategy to prevent outages since it allows for monitoring and quick rollback if issues arise without affecting all users.References: Canary releases are part of deployment strategies that can help mitigate the risk of outages during updates, a concept included in the CompTIA Cloud+ curriculum.

NEW QUESTION 84
Which of the following describes the main difference between public and private container repositories?

A. Private container repository access requires authorization, while public repository access does not require authorization.

B. Private container repositories are hidden by default and containers must be directly referenced, while public container repositories allow browsing of container images.
C. Private container repositories must use proprietary licenses, while public container repositories must have open-source licenses.
D. Private container repositories are used to obfuscate the content of the Dockerfile, while public container repositories allow for Dockerfile inspection.

Answer: A

Explanation:
The main difference between public and private container repositories lies in access control. Public repositories allow users to download and use container images without requiring any authorization, making them accessible to anyone. On the other hand, private repositories require users to have proper authorization, usually through credentials, to access the container images, thus providing a level of privacy and security control. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 89
Five thousand employees always access the company's public cloud-hosted web application on a daily basis during the same time frame. Some users have been reporting performance issues whileattempting to connect to the web application Which of the following is the best configuration approach to resolve this issue?

A. Scale vertically based on a trend.
B. Scale horizontally based on a schedule
C. Scale vertically based on a load.
D. Scale horizontally based on an event

Answer: B

Explanation:
For a web application accessed by a large number of employees daily during the same time frame, the best configuration approach to resolve performance issues is to scale horizontally based on a schedule. This means adding more server instances to handle the load during known peak times.References: Cloud resource scaling strategies, including scheduled horizontal scaling, are discussed in the CompTIA Cloud+ curriculum under cloud management and optimization.

NEW QUESTION 94
A cloud engineer is designing a cloud-native, three-tier application. The engineer must adhere to the following security best practices:
• Minimal services should run on all layers of the stack.
• The solution should be vendor agnostic.
• Virealization could be used over physical hardware.
Which of the following concepts should the engineer use to design the system to best meet these requirements?

A. Virtual machine
B. Micro services
C. Fan-out
D. Cloud-provided managed services

Answer: B

Explanation:
Microservices architecture is the most suitable design principle that aligns with the security best practices mentioned. It involves developing a suite of small services, each running in its own process and communicating with lightweight mechanisms, often an HTTP resource API. This architecture minimizes the services running on each layer, allows for vendor-agnostic solutions,and is well-suited for virtualization over physical hardware.References: Microservices as an architectural approach is discussed in the context of cloud-native applications within the CompTIA Cloud+ material.

NEW QUESTION 98
A company recently migrated to a public cloud provider. The company's computer incident response team needs to configure native cloud services tor detailed logging. Which of the following should the team implement on each cloud service to support root cause analysis of past events? {Select two).

A. Log retention
B. Tracing
C. Log aggregation
D. Log rotation
E. Hashing
F. Encryption

Answer: AC

Explanation:
For detailed logging to support root cause analysis of past events, the team should implement log retention to ensure logs are kept for the necessary amount of time and log aggregation to compile logs from various sources for easier analysis and correlation.References: Log management practices, including retention and aggregation, are part of the cloud management strategies covered in the CompTIA Cloud+ curriculum, particularly in the domain of technical operations.

NEW QUESTION 100
Which of the following communication methods between on-premises and cloud environments would ensure minimal-to-low latency and overhead?

A. Site-to-site VPN
B. Peer-to-peer VPN
C. Direct connection
D. peering

Answer: C

Explanation:

A direct connection between on-premises and cloud environments involves a dedicated, private connection that does not traverse the public internet. This setup ensures minimal-to-low latency and overhead, providing more consistent network performance and reliability compared to other methods like VPNs or public internet connections, making it suitable for high-volume or latency-sensitive applications.

NEW QUESTION 104
A cloud engineer wants to run a script that increases the volume storage size if it is below 100GB. Which of the following should the engineer run?

○ A.
```
if [ VOL = describe_volume_size(get_volume(VM)) < 100]
    resize_size(VOL)
else
     echo "$vol is already larger than 100GB"
```

○ B.
```
if [ VOL = describe_volume_size(get_volume(VM)) + 100]
    resize_size(VOL)
else
     echo "$vol is already larger than 100GB"
```

○ C.
```
if [ VOL = describe_volume_size(get_volume(VM)) != 100]
    resize_size(VOL)
else
     echo "$vol is already larger than 100GB"
```

○ D.
```
if [ VOL = describe_volume_size(get_volume(VM)) == 100]
    resize_size(VOL)
else
     echo "$vol is already larger than 100GB"
```

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

Answer: A

Explanation:
The correct script is Option A, which uses a conditional test to check if the volume size is less than 100GB. If it is, then it performs a resize operation; otherwise, it outputs a message indicating the volume is already the desired size. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Automation

NEW QUESTION 107
A company implements a web farm with 100 servers behind an application load balancer. Dunng scaling events, new web servers that are placed in service have not loaded all their modules, which causes some requests to the web farm to fail. Which of the following should the cloud engineer implement to address the scaling issue?

A. Instance warm-up
B. Scheduled scaling
C. Event-based scaling
D. Load balancer passthrough

Answer: A

Explanation:
Implementing an instance warm-up period can address the issue of new web servers not having all modules loaded during scaling events. This warm-up period allows new instances to fully initialize and start serving traffic only when they are ready, preventing failed requests.References: Scaling strategies and their operational impact, including the concept of instance warm-up, are covered under cloud infrastructure management in the CompTIA Cloud+ curriculum.

NEW QUESTION 110
Which of the following refers to the idea that data should stay within certain borders or territories?

A. Data classification
B. Data retention
C. Data sovereignty
D. Data ownership

Answer: C

Explanation:
Data sovereignty refers to the concept that data is subject to the laws and governance structures within the nation it is collected or stored. It implies that

regardless of where a company's data is stored, the data must comply with the laws of the country where it is physically located.References: The principle of data sovereignty is a critical consideration in international cloud services and is included in the governance, risk, and compliance domain of CompTIA Cloud+.

NEW QUESTION 115

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