

CompTIA

Exam Questions CV0-003

CompTIA Cloud+ Certification Exam



NEW QUESTION 1

- (Topic 1)

A systems administrator needs to configure monitoring for a private cloud environment. The administrator has decided to use SNMP for this task. Which of the following ports should the administrator open on the monitoring server's firewall?

- A. 53
- B. 123
- C. 139
- D. 161

Answer: D

Explanation:

Port 161 is the default port used by Simple Network Management Protocol (SNMP) to communicate with network devices and collect information about their status, performance, configuration, and events. Opening port 161 on the monitoring server's firewall will allow SNMP traffic to pass through and enable monitoring for a private cloud environment. If port 161 is closed or blocked, SNMP traffic will be denied or dropped, resulting in a failure to monitor the network devices.

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)

Which of the following cloud deployment models allows a company to have full control over its IT infrastructure?

- A. Private
- B. Cloud within a cloud
- C. Hybrid
- D. Public

Answer: A

Explanation:

A private cloud is a type of cloud deployment model that provides cloud services exclusively to a single organization or tenant. A private cloud allows a company to have full control over its IT infrastructure, as it can customize, configure, manage, and secure its own cloud environment according to its specific needs and preferences. A private cloud can also offer higher performance, reliability, and privacy than other cloud deployment models, as it does not share resources or data with other customers.

References: CompTIA Cloud+ Certification Exam Objectives, page 8, section 1.2 Reference: <https://www.sciencedirect.com/topics/computer-science/private-cloud>

NEW QUESTION 4

SIMULATION - (Topic 1)

The QA team is testing a newly implemented clinical trial management (CTM) SaaS application that uses a business intelligence application for reporting. The UAT users were instructed to use HTTP and HTTPS.

Refer to the application dataflow:

- 1A – The end user accesses the application through a web browser to enter and view clinical data.
- 2A – The CTM application server reads/writes data to/from the database server.
- 1B – The end user accesses the application through a web browser to run reports on clinical data.
- 2B – The CTM application server makes a SOAP call on a non-privileged port to the BI application server.
- 3B – The BI application server gets the data from the database server and presents it to the CTM application server.

When UAT users try to access the application using <https://ctm.app.com> or <http://ctm.app.com>, they get a message stating: "Browser cannot display the webpage." The QA team has raised a ticket to troubleshoot the issue.

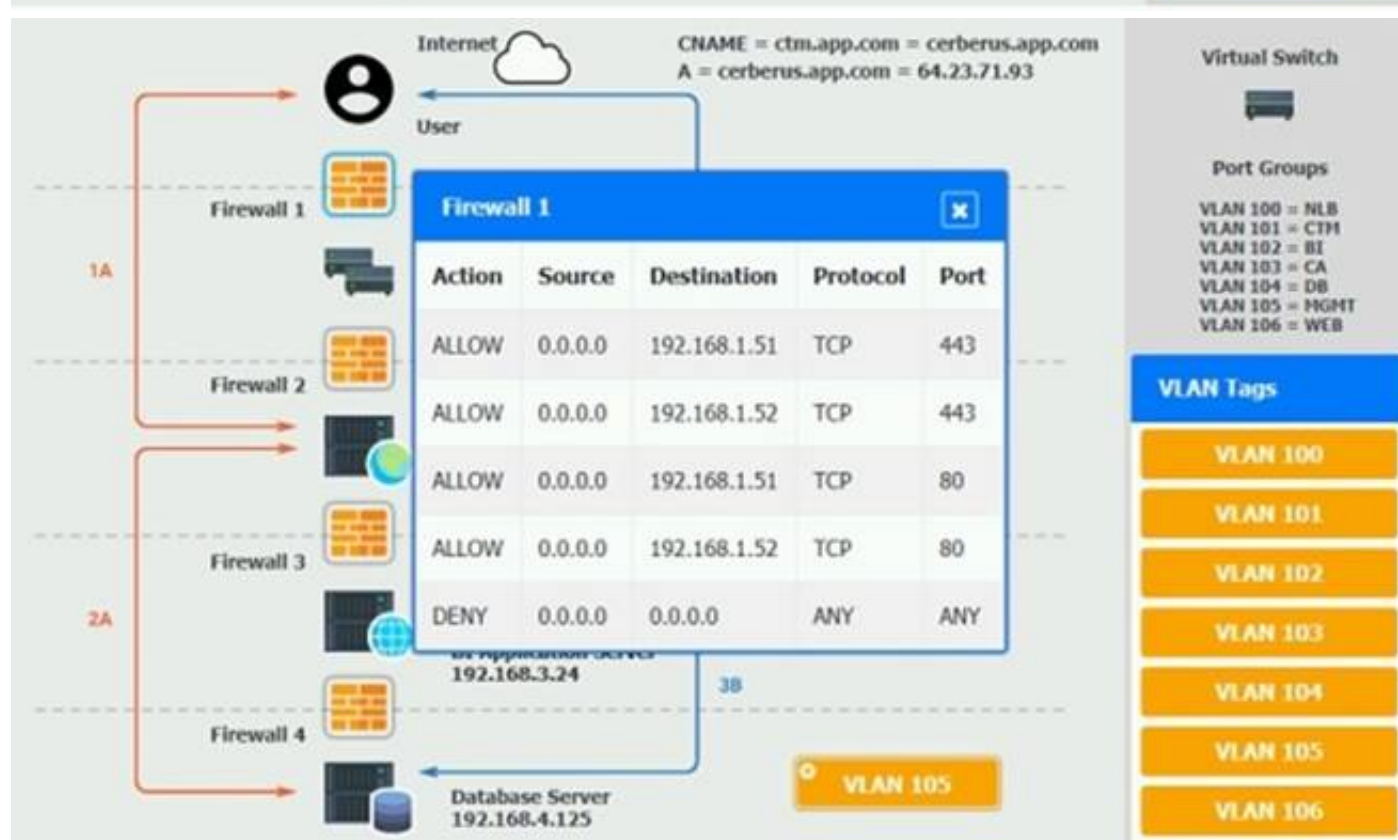
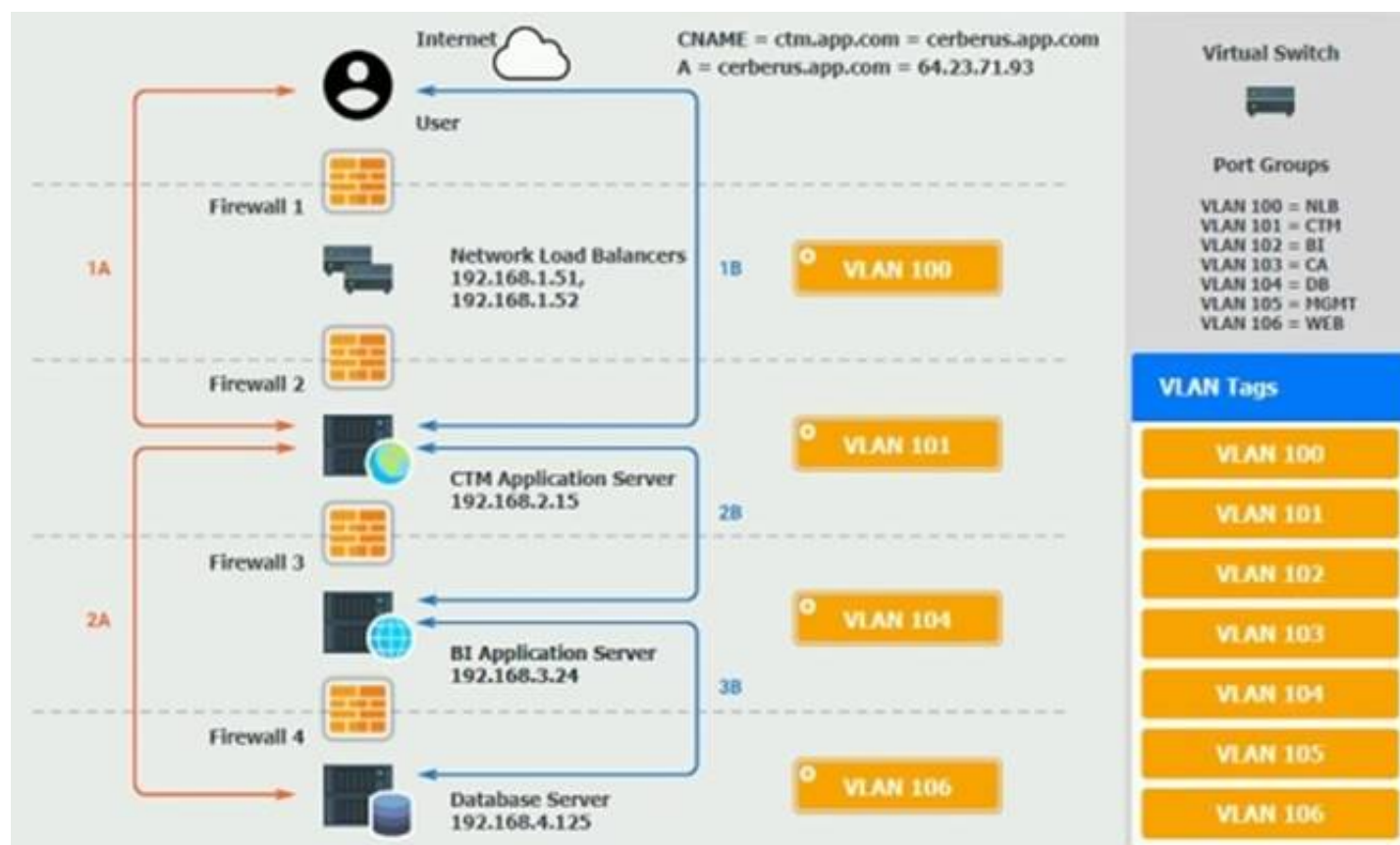
INSTRUCTIONS

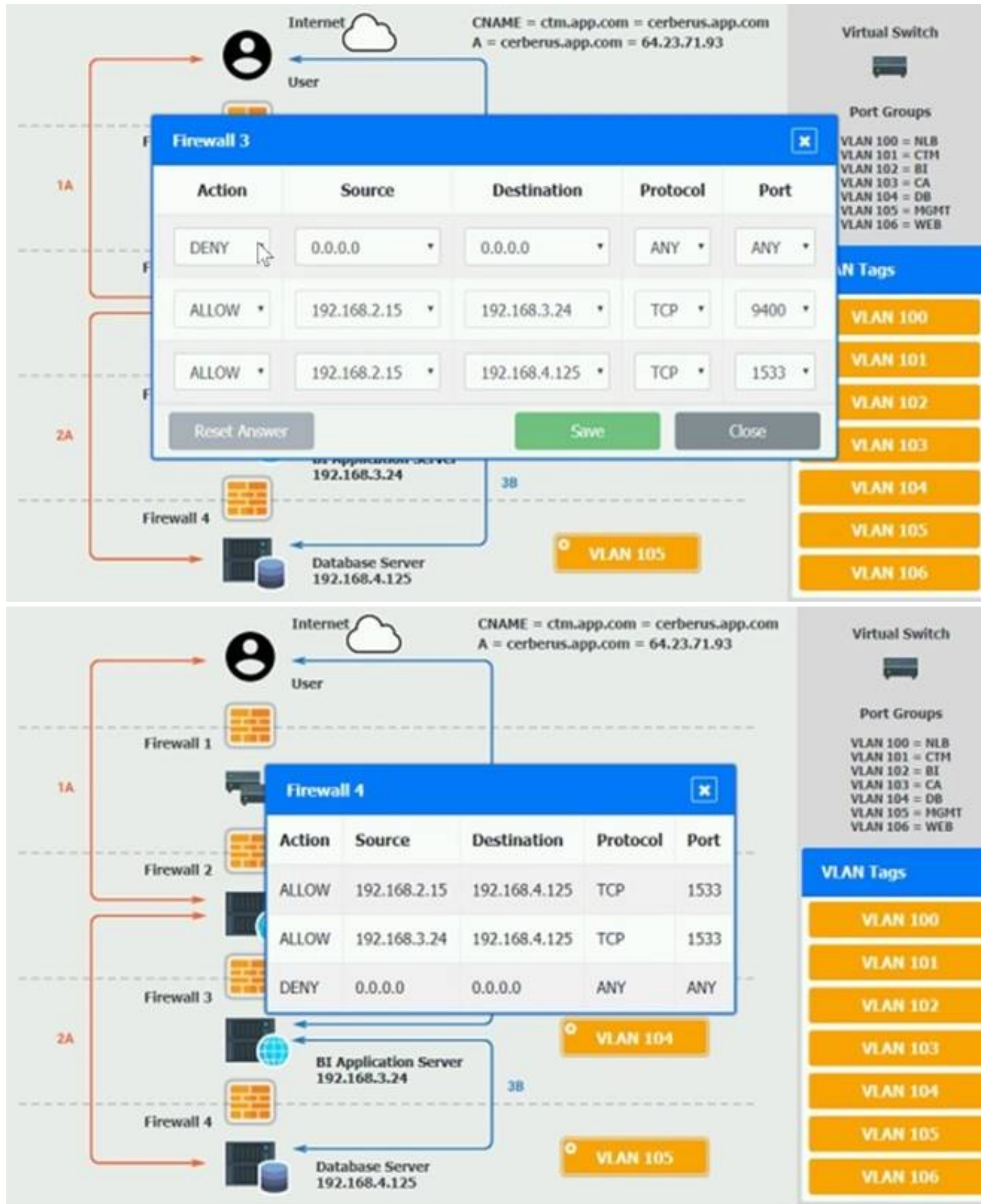
You are a cloud engineer who is tasked with reviewing the firewall rules as well as virtual network settings.

You should ensure the firewall rules are allowing only the traffic based on the dataflow. You have already verified the external DNS resolution and NAT are working.

Verify and appropriately configure the VLAN assignments and ACLs. Drag and drop the appropriate VLANs to each tier from the VLAN Tags table. Click on each Firewall to change ACLs as needed.

If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.





- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

On firewall 3, change the DENY 0.0.0.0 entry to rule 3 not rule 1.

NEW QUESTION 5

- (Topic 1)

Which of the following strategies will mitigate the risk of a zero-day vulnerability MOST efficiently?

- A. Using only open-source technologies
- B. Keeping all resources up to date
- C. Creating a standby environment with a different cloud provider
- D. Having a detailed incident response plan

Answer: D

Explanation:

An incident response plan is a document or procedure that defines the roles, responsibilities, and actions to be taken in the event of a security incident or breach. Having a detailed incident response plan can help mitigate the risk of a zero-day vulnerability most efficiently, as it can provide a clear and consistent framework for identifying, containing, analyzing, and resolving any potential threats or exploits related to the unknown or unpatched vulnerability. Having a detailed incident response plan can also help minimize the impact and damage of a security incident or breach, as it can enable timely and effective recovery and restoration processes. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 6

- (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 7

- (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 8

- (Topic 1)

An organization has the following requirements that need to be met when implementing cloud services:

- ? SSO to cloud infrastructure
- ? On-premises directory service
- ? RBAC for IT staff

Which of the following cloud models would meet these requirements?

- A. Public
- B. Community
- C. Hybrid
- D. Multitenant

Answer: C

Explanation:

A hybrid cloud is a type of cloud deployment model that combines two or more different types of clouds, such as public, private, or community clouds, into a single integrated environment. A hybrid cloud can meet the requirements for implementing cloud services with SSO to cloud infrastructure, on-premises directory service, and RBAC for IT staff, as it can provide flexibility, scalability, and security for cloud-based and on-premises resources. A hybrid cloud can also enable seamless and secure access to cloud infrastructure using SSO with directory service federation, as well as granular and consistent control over IT staff permissions using RBAC across different cloud environments. References: CompTIA Cloud+ Certification Exam Objectives, page 8, section 1.2

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 with 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)

An organization is hosting a DNS domain with private and public IP ranges. Which of the following should be implemented to achieve ease of management?

- A. Network peering
- B. A CDN solution
- C. A SDN solution
- D. An IPAM solution

Answer: D

Explanation:

An IP address management (IPAM) solution is a type of tool or system that automates and standardizes the allocation, tracking, and management of IP addresses in an IP network. An IPAM solution can help achieve ease of management for hosting a DNS domain with private and public IP ranges, as it can simplify and centralize the process of assigning and updating IP addresses for different DNS records or zones without manual intervention or errors. An IPAM solution can also help optimize DNS performance and security, as it can monitor and report any issues or conflicts related to IP addresses or DNS records. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8
Reference: <https://www.infoblox.com/glossary/ipam-ip-address-management/>

NEW QUESTION 10

- (Topic 1)

A company has decided to get multiple compliance and security certifications for its public cloud environment. However, the company has few staff members to handle the extra workload, and it has limited knowledge of the current infrastructure.

Which of the following will help the company meet the compliance requirements as quickly as possible?

- A. DLP
- B. CASB
- C. FIM
- D. NAC

Answer: B

Explanation:

A cloud access security broker (CASB) is a type of security solution that acts as a gateway between cloud service users and cloud service providers. A CASB can help a company get multiple compliance and security certifications for its public cloud environment, as it can provide visibility, control, and protection for cloud data and applications. A CASB can also help the company handle the extra workload and overcome the limited knowledge of the current infrastructure, as it can automate and simplify the enforcement of security policies and compliance requirements across multiple cloud services. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 13

- (Topic 1)

A company wants to implement business continuity, and the cloud solution architect needs to design the correct solution.

Which of the following will provide the data to measure business continuity? (Choose two.)

- A. A service-level agreement
- B. Automation scripts
- C. Playbooks
- D. A network diagram
- E. A backup and restore
- F. A recovery time objective

Answer: AF

Explanation:

A service-level agreement (SLA) is a contract or document that defines the level of service and performance expected from a service provider or vendor. A recovery time objective (RTO) is a metric that specifies the maximum acceptable time for restoring a system or service after a disruption or outage. Both SLA and RTO can provide the data to measure business continuity, as they can indicate the availability, reliability, and recoverability of a system or service in case of a failure or disaster. SLA and RTO can also help evaluate the effectiveness and efficiency of the business continuity plan and solution. References: CompTIA Cloud+ Certification Exam Objectives, page 20, section 4.2

NEW QUESTION 16

- (Topic 1)

An organization is implementing a new requirement to facilitate users with faster downloads of corporate application content. At the same time, the organization is also expanding cloud regions.

Which of the following would be suitable to optimize the network for this requirement?

- A. Implement CDN for overall cloud application
- B. Implement auto-scaling of the compute resources
- C. Implement SR-IOV on the server instances
- D. Implement an application container solution

Answer: C

Explanation:

Reference: https://access.redhat.com/documentation/en-us/red_hat_openshift_platform/13/html/network_functions_virtualization_planning_and_configuration_guide/part-sriov-nfv-configuration

NEW QUESTION 20

- (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 25

- (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 27

- (Topic 1)

A company is switching from one cloud provider to another and needs to complete the migration as quickly as possible.

Which of the following is the MOST important consideration to ensure a seamless migration?

- A. The cost of the environment
- B. The I/O of the storage
- C. Feature compatibility
- D. Network utilization

Answer: C

Explanation:

Feature compatibility is the degree to which the features or functionalities of a system or application are compatible or interoperable with another system or application. Feature compatibility is the most important consideration to ensure a seamless migration from one cloud provider to another, as it can affect the performance, reliability, and security of the system or application in the new cloud environment. Feature compatibility can also help complete the migration as quickly as possible, as it can reduce or eliminate the need for reconfiguration, customization, or testing of the system or application after the migration. References: CompTIA Cloud+ Certification Exam Objectives, page 18, section 3.5

NEW QUESTION 28

- (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 33

- (Topic 1)

A systems administrator is creating a playbook to run tasks against a server on a set schedule.
Which of the following authentication techniques should the systems administrator use within the playbook?

- A. Use the server's root credentials
- B. Hard-code the password within the playbook
- C. Create a service account on the server
- D. Use the administrator's SSO credentials

Answer: C

Explanation:

A service account is a type of user account that is created for a specific service or application to run on a server or system. Creating a service account on the server is the best authentication technique to use within the playbook to run tasks against the server on a set schedule, as it can provide secure and consistent access to the server without exposing or hard-coding any sensitive credentials within the playbook. Creating a service account can also help manage and monitor the tasks and activities performed by the service or application on the server. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 35

- (Topic 1)

A systems administrator notices that a piece of networking equipment is about to reach its end of support.
Which of the following actions should the administrator recommend?

- A. Update the firmware
- B. Migrate the equipment to the cloud
- C. Update the OS
- D. Replace the equipment

Answer: D

Explanation:

Replacing the equipment is the best action to take when a piece of networking equipment is about to reach its end of support. End of support means that the vendor or manufacturer will no longer provide technical assistance, updates, patches, or fixes for the equipment, which can affect its functionality, performance, security, and compatibility. Replacing the equipment with a newer model that has ongoing support can prevent any issues or risks associated with using outdated equipment.

References: CompTIA Cloud+ Certification Exam Objectives, page 18, section 3.5

NEW QUESTION 38

- (Topic 1)

A company that utilizes an IaaS service provider has contracted with a vendor to perform a penetration test on its environment. The vendor is able to exploit the virtualization layer and obtain access to other instances within the cloud provider's environment that do not belong to the company.
Which of the following BEST describes this attack?

- A. VM escape
- B. Directory traversal
- C. Buffer overflow
- D. Heap spraying

Answer: A

Explanation:

VM escape is a type of attack that allows an attacker to break out of a virtual machine (VM) and access the host system or other VMs within the same cloud provider's environment. VM escape can exploit the vulnerabilities in the virtualization layer or hypervisor that separates and isolates the VMs from each other and from the host system. VM escape can result in serious consequences, such as compromising the security and privacy of other customers' data or resources, gaining unauthorized access to the cloud provider's infrastructure or services, or launching further attacks on other systems or networks. VM escape best describes the attack that was performed by a vendor who was able to exploit the virtualization layer and obtain access to other instances within the cloud provider's environment that do not belong to the company. References: CompTIA Cloud+ Certification Exam Objectives, page 19, section 4.1

Reference: <https://whatis.techtarget.com/definition/virtual-machine-escape>

NEW QUESTION 40

- (Topic 1)

A systems administrator needs to configure a set of policies to protect the data to comply with mandatory regulations.
Which of the following should the administrator implement to ensure DLP efficiently prevents the exposure of sensitive data in a cloud environment?

- A. Integrity
- B. Versioning
- C. Classification
- D. Segmentation

Answer: C

Explanation:

Classification is a process of assigning labels or categories to data based on its sensitivity, value, or risk level. Classification can help implement data loss prevention (DLP) policies by identifying which data needs to be protected and how to protect it according to its classification level. Classification can also help comply with mandatory regulations by ensuring that data is handled and stored appropriately based on its legal or contractual requirements. Classification is essential for DLP to efficiently prevent the exposure of sensitive data in a cloud environment. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 42

- (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 46

- (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 48

- (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 53

- (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 58

- (Topic 1)

A cloud administrator is reviewing a new application implementation document. The administrator needs to make sure all the known bugs and fixes are applied, and unwanted ports and services are disabled.

Which of the following techniques would BEST help the administrator assess these business requirements?

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

Answer: D

Explanation:

Regression testing is a type of software testing that verifies that existing features or functionalities of a system or application are not affected by any changes or updates made to it. Regression testing can help assess whether all the known bugs and fixes are applied and unwanted ports and services are disabled when reviewing a new application implementation document for a cloud deployment, as it can detect any errors or defects that may have been introduced or re-introduced after applying patches, updates, or configurations to the application. References: CompTIA Cloud+ Certification Exam Objectives, page 19, section 4.1

NEW QUESTION 61

- (Topic 1)

A cloud administrator is building a new VM for a network security appliance. The security appliance installer says the CPU clock speed does not meet the requirements.

Which of the following will MOST likely solve the issue?

- A. Move the VM to a host with a faster CPU
- B. Add more vCPUs to the VM
- C. Enable CPU masking on the VM
- D. Enable hyperthreading on the virtual host

Answer: A

Explanation:

Moving the VM to a host with a faster CPU is the best way to solve the issue of the security appliance installer saying the CPU clock speed does not meet the requirements when building a new VM for a network security appliance. Moving the VM to a host with a faster CPU can ensure that the VM meets the minimum CPU clock speed requirement for the security appliance, as it can use the physical CPU resources of the host. Moving the VM to a host with a faster CPU can also improve the performance and reliability of the security appliance, as it can reduce latency, contention, and overhead.

References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6

NEW QUESTION 66

- (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 68

- (Topic 1)

An IaaS provider has numerous devices and services that are commissioned and decommissioned automatically on an ongoing basis. The cloud administrator needs to implement a solution that will help reduce administrative overhead.

Which of the following will accomplish this task?

- A. IPAM
- B. NAC
- C. NTP
- D. DNS

Answer: A

Explanation:

IP address management (IPAM) is a type of tool or system that automates and standardizes the allocation, tracking, and management of IP addresses in an IP network. IPAM can help reduce administrative overhead for an IaaS provider that has numerous devices and services that are commissioned and decommissioned automatically on an ongoing basis, as it can simplify and centralize the process of assigning and reclaiming IP addresses for different devices and services without manual intervention or errors. IPAM can also help optimize network performance and security, as it can monitor and report any issues or conflicts related to IP addresses. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

Reference: <https://www.infoblox.com/glossary/ipam-ip-address-management/>

NEW QUESTION 73

- (Topic 1)

A cloud architect wants to minimize the risk of having systems administrators in an IaaS compute instance perform application code changes. The development group should be the only group allowed to modify files in the directory. Which of the following will accomplish the desired objective?

- A. Remove the file write permissions for the application service account.
- B. Restrict the file write permissions to the development group only.
- C. Add access to the file share for the systems administrator's group.
- D. Deny access to all development user accounts

Answer: B

Explanation:

File write permissions are permissions that control who can modify or delete files in a directory or system. Restricting the file write permissions to the development group only can help minimize the risk of having systems administrators in an IaaS compute instance perform application code changes, as it can prevent anyone other than the development group from altering or removing any files in the directory where the application code is stored. Restricting the file write permissions can also help maintain consistency and integrity, as it can ensure that only authorized and qualified users can make changes to the application code. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 77

- (Topic 1)

A VDI administrator has received reports of poor application performance. Which of the following should the administrator troubleshoot FIRST?

- A. The network environment
- B. Container resources
- C. Client devices
- D. Server resources

Answer: A

Explanation:

The network environment is the set of network devices, connections, protocols, and configurations that enable communication and data transfer between different systems and applications. The network environment can affect the performance of a virtual desktop infrastructure (VDI) by influencing factors such as bandwidth, latency, jitter, packet loss, and congestion. Poor network performance can result in slow or unreliable application delivery, degraded user experience, and reduced productivity.

Therefore, troubleshooting the network environment should be the first step for a VDI administrator who receives reports of poor application performance.

References: CompTIA Cloud+ Certification Exam Objectives, page 17, section 3.4

NEW QUESTION 80

- (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 84

- (Topic 1)

A company just successfully completed a DR test and is ready to shut down its DR site and resume normal operations. Which of the following actions should the cloud administrator take FIRST?

- A. Initiate a failover
- B. Restore backups
- C. Configure the network
- D. Perform a failback

Answer: D

Explanation:

A failback is a process of restoring or returning a system or service to its original state or location after a failure or disaster recovery event. Performing a failback is the first action that a cloud administrator should take after successfully completing a DR test and being ready to shut down its DR site and resume normal operations, as it can ensure that all data and configurations are synchronized and consistent between the primary site and the DR site before switching back to the primary site. Performing a failback can also help minimize downtime or disruption, as it can verify that all systems or services are functioning properly before resuming normal operations. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5

NEW QUESTION 86

- (Topic 2)

A vendor is installing a new retail store management application for a customer. The application license ensures software costs are low when the application is not being used, but costs go up when use is higher.

Which of the following licensing models is MOST likely being used?

- A. Socket-based
- B. Core-based
- C. Subscription
- D. Volume-based

Answer: D

Explanation:

Volume-based licensing is a pricing model that charges the customers based on the amount of usage or consumption of a software product or service. The more the customers use the software, the higher the costs will be. This model is suitable for applications that have variable or seasonal demand patterns. Examples of volume-based licensing are AWS Lambda, Azure Functions, Google Cloud Run, etc.

NEW QUESTION 87

- (Topic 2)

A systems administrator is deploying a new cloud application and needs to provision cloud services with minimal effort. The administrator wants to reduce the tasks required for maintenance, such as OS patching, VM and volume provisioning, and autoscaling configurations. Which of the following would be the BEST option to deploy the new application?

- A. A VM cluster
- B. Containers
- C. OS templates
- D. Serverless

Answer: D

Explanation:

Serverless is what would be the best option to deploy a new cloud application and provision cloud services with minimal effort while reducing the tasks required for maintenance such as OS patching, VM and volume provisioning, and autoscaling configurations. Serverless is a cloud service model that provides customers with a platform to run applications or functions without having to manage or provision any underlying infrastructure or resources, such as servers, storage, network, OS, etc. Serverless can provide benefits such as:

? Minimal effort: Serverless can reduce the effort required to deploy a new cloud application and provision cloud services by automating and abstracting away all the infrastructure or resource management or provisioning tasks from customers, and allowing them to focus only on writing code or logic for their applications or functions.

? Reduced maintenance: Serverless can reduce the tasks required for maintenance by handling all the infrastructure or resource maintenance tasks for customers, such as OS patching, VM and volume provisioning, autoscaling configurations, etc., and ensuring that they are always up-to-date and optimized.

NEW QUESTION 90

- (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 93

- (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 94

- (Topic 2)

A company is concerned about the security of its data repository that contains customer PII. A systems administrator is asked to deploy a security control that will prevent the exfiltration of such data. Which of the following should the systems administrator implement?

- A. DLP
- B. WAF
- C. FIM
- D. ADC

Answer: A

Explanation:

Reference: <https://cloud.google.com/blog/products/identity-security/4-steps-to-stop-data-exfiltration-with-google-cloud>

Implementing DLP (Data Loss Prevention) is the best solution to prevent the exfiltration of customer PII (Personally Identifiable Information) from a data repository. DLP is a security control that monitors, detects, and blocks sensitive data from leaving or being accessed by unauthorized parties. DLP can be applied at different levels, such as network, endpoint, storage, or cloud. DLP can help to protect customer PII from being leaked, stolen, or compromised.

NEW QUESTION 95

- (Topic 2)

Which of the following definitions of serverless computing BEST explains how it is different from using VMs?

- A. Serverless computing is a cloud-hosting service that utilizes infrastructure that is fully managed by the CSP.
- B. Serverless computing uses predictable billing and offers lower costs than VM compute services.
- C. Serverless computing is a scalable, highly available cloud service that uses SDN technologies.
- D. Serverless computing allows developers to focus on writing code and organizations to focus on business.

Answer: D

Explanation:

This is the best definition of serverless computing that explains how it is different from using VMs (Virtual Machines). Serverless computing is a cloud service model that provides customers with a platform to run applications or functions without having to manage or provision any underlying infrastructure or resources, such as servers, storage, network, OS, etc. Serverless computing is different from using VMs in the following ways:

? Serverless computing allows developers to focus on writing code and organizations to focus on business, rather than spending time and effort on managing or scaling VMs or other infrastructure components.

? Serverless computing is event-driven and pay-per-use, which means that applications or functions are executed only when triggered by a specific event or request, and customers are charged only for the resources consumed during the execution time.

? Serverless computing is more scalable and flexible than using VMs, as it can automatically adjust the capacity and performance of applications or functions according to demand or workload, without requiring any manual intervention or configuration.

NEW QUESTION 96

- (Topic 2)

A cloud administrator is building a new VM for machine-learning training. The developer requesting the VM has stated that the machine will need a full GPU dedicated to it.

Which of the following configuration options would BEST meet this requirement?

- A. Virtual GPU
- B. External GPU
- C. Passthrough GPU
- D. Shared GPU

Answer: C

Explanation:

Reference: <https://blogs.vmware.com/apps/2018/09/using-gpus-with-virtual-machines-on-vsphere-part-2-vmdirectpath-i-o.html>

Passthrough GPU is a configuration option that allows a VM to access a physical GPU directly without any virtualization layer or sharing mechanism. This provides the VM with full and exclusive access to the GPU resources and performance. Passthrough GPU is suitable for applications that require intensive graphics processing or machine learning training.

NEW QUESTION 101

- (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 106

- (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 108

- (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 111

- (Topic 2)

A company is planning to migrate applications to a public cloud, and the Chief Information Officer (CIO) would like to know the cost per business unit for the applications in the cloud. Before the migration, which of the following should the administrator implement FIRST to assist with reporting the cost for each business unit?

- A. An SLA report
- B. Tagging
- C. Quotas
- D. Showback

Answer: B

Explanation:

Tagging is what the administrator should implement first to assist with reporting the cost for each business unit for applications in a public cloud environment. Tagging is a technique that allows customers to assign metadata or labels to their cloud resources, such as applications, instances, volumes, etc., based on their attributes or criteria. Tagging can help customers to organize, manage, monitor, and report their cloud resources and costs by business unit, project, owner, environment, etc.

NEW QUESTION 112

- (Topic 2)

A company is currently running a website on site. However, because of a business requirement to reduce current RTO from 12 hours to one hour, and the RPO from one day to eight hours, the company is considering operating in a hybrid environment. The website uses mostly static files and a small relational database. Which of the following should the cloud architect implement to achieve the objective at the LOWEST cost possible?

- A. Implement a load-balanced environment in the cloud that is equivalent to the current on- premises setup and use DNS to shift the load from on premises to cloud.
- B. Implement backups to cloud storage and infrastructure as code to provision the environment automatically when the on-premises site is down
- C. Restore the data from the backups.
- D. Implement a website replica in the cloud with auto-scaling using the smallest possible footprint
- E. Use DNS to shift the load from on premises to the cloud.
- F. Implement a CDN that caches all requests with a higher TTL and deploy the IaaS instances manually in case of disaster
- G. Upload the backup on demand to the cloud to restore on the new instances.

Answer: C

Explanation:

This is the best solution to achieve the objective of reducing current RTO (Recovery Time Objective) from 12 hours to one hour, and RPO (Recovery Point Objective) from one day to eight hours, at the lowest cost possible, for a website that uses mostly static files and a small relational database. RTO is a metric that measures how quickly a system or service can be restored after a disruption or disaster. 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. To reduce RTO and RPO, the administrator should implement a website replica in the cloud with auto-scaling using the smallest possible footprint. A website replica is a copy or backup of a website that can be used for recovery or failover purposes. Auto-scaling is a feature that allows cloud resources or systems to adjust their capacity and performance according to demand or workload. Using auto-scaling with the smallest possible footprint can minimize costs by using only the necessary resources and scaling up or down as needed. The administrator should also use DNS (Domain Name System) to shift the load from on premises to the cloud. DNS is a service that translates domain names into IP addresses and vice versa. Using DNS, the administrator can redirect traffic from the on-premises website to the cloud replica in case of a disruption or disaster, and vice versa when recovery is complete.

NEW QUESTION 115

- (Topic 2)

A technician just received the lessons learned from some recent data that was lost due to an on-premises file-server crash. The action point is to change the backup strategy to minimize manual intervention. Which of the following is the BEST approach for the technician to implement?

- A. Backup as a service
- B. RAID 1
- C. Long-term storage
- D. New backup devices

Answer: A

Explanation:

Backup as a service (BaaS) is the best approach for changing the backup strategy to minimize manual intervention after a data loss due to an on-premises file-server crash. BaaS is a cloud-based service that provides backup and recovery solutions for customers' data and systems. BaaS can automate and simplify backup processes by using cloud storage, encryption, deduplication, compression, scheduling, etc., without requiring customers to purchase or maintain backup hardware or software.

NEW QUESTION 120

- (Topic 2)

A cloud administrator would like to deploy a cloud solution to its provider using automation techniques. Which of the following must be used? (Choose two.)

- A. Auto-scaling
- B. Tagging
- C. Playbook
- D. Templates
- E. Containers
- F. Serverless

Answer: CD

Explanation:

Playbook and templates are two things that must be used to deploy a cloud solution to its provider using automation techniques. A playbook is a file or script that defines a set of tasks or actions to be executed on one or more cloud resources or systems. A playbook can automate and standardize the deployment and configuration of cloud solutions using tools such as Ansible, Chef, Puppet, etc. A template is a preconfigured image or blueprint of a cloud resource or system that contains an OS, applications, settings, etc., that can be used to create new resources or systems quickly and consistently. A template can simplify and speed up the deployment of cloud solutions using tools such as AWS CloudFormation, Azure Resource Manager, Google Cloud Deployment Manager, etc.

NEW QUESTION 125

- (Topic 2)

A cloud administrator needs to reduce the cost of cloud services by using the company's off-peak period. Which of the following would be the BEST way to achieve this with minimal effort?

- A. Create a separate subscription.
- B. Create tags.
- C. Create an auto-shutdown group.
- D. Create an auto-scaling group.

Answer: C

Explanation:

Creating an auto-shutdown group is the best way to reduce the cost of cloud services by using the company's off-peak period with minimal effort. An auto-shutdown group is a feature that allows customers to automatically turn off or shut down certain cloud resources or services during a specified time period or schedule. An auto-shutdown group can help to reduce the cost of cloud services by minimizing the consumption of resources or services during off-peak periods, when they are not needed or used. An auto-shutdown group can also help to reduce the effort of managing cloud resources or services by automating the shutdown process, without requiring any manual intervention or configuration.

NEW QUESTION 127

- (Topic 2)

After a few new web servers were deployed, the storage team began receiving incidents in their queue about the web servers. The storage administrator wants to verify the incident tickets that should have gone to the web server team. Which of the following is the MOST likely cause of the issue?

- A. Incorrect assignment group in service management
- B. Incorrect IP address configuration
- C. Incorrect syslog configuration on the web servers
- D. Incorrect SNMP settings

Answer: C

Explanation:

Incorrect syslog configuration on the web servers is the most likely cause of the issue of storage team receiving incidents in their queue about web servers after new web servers were deployed in a cloud environment. Syslog is a standard protocol that allows network devices and systems to send log messages to a centralized server or collector. Syslog can help to consolidate and manage logs from different sources in one place, which can facilitate monitoring, analysis, troubleshooting, auditing, etc. Incorrect syslog configuration on the web servers can cause them to send log messages to the wrong destination or queue, such as the storage team's queue, rather than the web server team's queue.

NEW QUESTION 128

- (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 132

- (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 136

- (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 141

- (Topic 2)

A cloud administrator is assigned to establish a connection between the on-premises data center and the new CSP infrastructure. The connection between the two locations must be secure at all times and provide service for all users inside the organization. Low latency is also required to improve performance during data transfer operations. Which of the following would BEST meet these requirements?

- A. A VPC peering configuration
- B. An IPSec tunnel
- C. An MPLS connection
- D. A point-to-site VPN

Answer: B

Explanation:

An IPSec tunnel is what would best meet the requirements of establishing a connection between the on-premises data center and the new CSP infrastructure that is secure at all times and provides service for all users inside the organization with low latency. IPSec (Internet Protocol Security) is a protocol that encrypts and secures network traffic over IP networks. IPSec tunnel is a mode of IPSec that creates a virtual private network (VPN) tunnel between two endpoints, such as routers, firewalls, gateways, etc., and encrypts and secures all traffic that passes through it. An IPSec tunnel can meet the requirements by providing:

? Security: An IPSec tunnel can protect network traffic from interception, modification, spoofing, etc., by using encryption, authentication, integrity, etc., mechanisms.

? Service: An IPSec tunnel can provide service for all users inside the organization by allowing them to access and use network resources or services on both ends of the tunnel, regardless of their physical location.

? Low latency: An IPSec tunnel can provide low latency by reducing the number of hops or devices that network traffic has to pass through between the endpoints of the tunnel.

NEW QUESTION 144

- (Topic 2)

A cloud administrator is upgrading a cloud environment and needs to update the automation script to use a new feature from the cloud provider. After executing the script, the deployment fails. Which of the following is the MOST likely cause?

- A. API incompatibility
- B. Location changes
- C. Account permissions
- D. Network failure

Answer: A

Explanation:

API incompatibility is the most likely cause of the failure of an automation script to use a new feature from the cloud provider. 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 incompatibility is a situation where an API does not work or function properly with another software component or system due to differences or changes in versions, formats, parameters, etc. API incompatibility can cause errors or issues when using an automation script to deploy or configure cloud resources or services, especially if the script is not updated or modified according to the new API specifications.

NEW QUESTION 146

- (Topic 2)

A systems administrator is trying to establish an RDP session from a desktop to a server in the cloud. However, the connection appears to be refused even though the VM is responding to ICMP echo requests. Which of the following should the administrator check FIRST?

- A. The firewall
- B. The subnet
- C. The gateway
- D. The services

Answer: A

Explanation:

The firewall is the first thing that the administrator should check if an RDP (Remote Desktop Protocol) session from a desktop to a server in the cloud is refused even though the VM is responding to ICMP echo requests. A firewall is a device or software that controls the incoming and outgoing network traffic based on predefined rules or policies. A firewall may block RDP connections by default or require specific ports or rules to be opened or configured.

NEW QUESTION 150

- (Topic 2)

A systems administrator wants to verify the word "qwerty" has not been used as a password on any of the administrative web consoles in a network. Which of the following will achieve this goal?

- A. A service availability scan
- B. An agent-based vulnerability scan
- C. A default and common credentialed scan
- D. A network port scan

Answer: C

Explanation:

A default and common credentialed scan is what the administrator should use to verify the word “qwerty” has not been used as a password on any of the administrative web consoles in a network. A credentialed scan is a type of vulnerability scan that uses valid credentials or accounts to access and scan target systems or devices. A credentialed scan can provide more accurate and detailed results than a non-credentialed scan, as it can perform more actions and tests on target systems or devices. A default and common credentialed scan is a type of credentialed scan that uses default or common credentials or accounts, such as admin/admin, root/root, etc., to access and scan target systems or devices. A default and common credentialed scan can help to identify weak or insecure passwords on administrative web consoles, such as “qwerty”, and recommend stronger passwords.

NEW QUESTION 151

- (Topic 2)

A resource pool in a cloud tenant has 90 GB of memory and 120 cores. The cloud administrator needs to maintain a 30% buffer for resources for optimal performance of the hypervisor. Which of the following would allow for the maximum number of two-core machines with equal memory?

- A. 30 VMs, 3GB of memory
- B. 40 VMs, 1,5GB of memory
- C. 45 VMs, 2 GB of memory
- D. 60 VMs, 1 GB of memory

Answer: C

Explanation:

To calculate the maximum number of two-core machines with equal memory, we need to consider the resource pool capacity and the buffer requirement. The resource pool has 90 GB of memory and 120 cores, but the cloud administrator needs to maintain a 30% buffer for optimal performance. This means that only 70% of the resources can be used for VM allocation. Therefore, the available memory is $90 \text{ GB} \times 0.7 = 63 \text{ GB}$, and the available cores are $120 \times 0.7 = 84 \text{ cores}$. To allocate two-core machines with equal memory, we need to divide the available memory by the available cores and multiply by two. This gives us the memory size per VM: $(63 \text{ GB} / 84 \text{ cores}) \times 2 = 1.5 \text{ GB}$. However, this is not a valid answer option, so we need to find the closest option that does not exceed the available resources. The best option is C, which allocates 45 VMs with 2 GB of memory each. This uses up $45 \times 2 = 90 \text{ GB}$ of memory and $45 \times 2 = 90 \text{ cores}$, which are within the available limits.

NEW QUESTION 153

- (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 154

- (Topic 2)

A disaster situation has occurred, and the entire team needs to be informed about the situation. Which of the following documents will help the administrator find the details of the relevant team members for escalation?

- A. Chain of custody
- B. Root cause analysis
- C. Playbook
- D. Call tree

Answer: D

Explanation:

A call tree is what will help the administrator find the details of the relevant team members for escalation after a disaster situation has occurred and the entire team needs to be informed about the situation. A call tree is a document or diagram that shows the hierarchy or sequence of communication or notification among team members in case of an emergency or incident, such as a disaster situation. A call tree can help to find the details of the relevant team members for escalation by providing information such as:

? Name: This indicates who is involved in the communication or notification process, such as team members, managers, stakeholders, etc.

? Role: This indicates what is their function or responsibility in the communication or notification process, such as initiator, receiver, sender, etc.

? Contact: This indicates how they can be reached or contacted in the communication or notification process, such as phone number, email address, etc.

NEW QUESTION 157

- (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 160

- (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 162

- (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 164

- (Topic 2)

An engineer is responsible for configuring a new firewall solution that will be deployed in a new public cloud environment. All traffic must pass through the firewall. The SLA for the firewall is 99.999%. Which of the following should be deployed?

- A. Two load balancers behind a single firewall
- B. Firewalls in a blue-green configuration
- C. Two firewalls in a HA configuration
- D. A web application firewall

Answer: C

Explanation:

Deploying two firewalls in a HA (High Availability) configuration is the best option to ensure all traffic passes through the firewall and meets the SLA (Service Level Agreement) of 99.999%. HA is a design principle that aims to minimize downtime and ensure continuous operation of a system or service. HA can be achieved by using redundancy, failover, load balancing, clustering, etc. Two firewalls in a HA configuration can provide redundancy and failover in case one firewall fails or becomes overloaded.

NEW QUESTION 169

- (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 174

- (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 179

- (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 181

- (Topic 2)

A company needs to migrate the storage system and batch jobs from the local storage system to a public cloud provider. Which of the following accounts will MOST likely be created to run the batch processes?

- A. User
- B. LDAP
- C. Role-based
- D. Service

Answer: D

Explanation:

A service account is what will most likely be created to run the batch processes that migrate the storage system and batch jobs from the local storage system to a public cloud provider. A service account is a special type of account that is used to perform automated tasks or operations on a system or service, such as running scripts, applications, or processes. A service account can provide benefits such as:

? Security: A service account can have limited or specific permissions and roles that are required to perform the tasks or operations, which can prevent unauthorized or malicious access or actions.

? Efficiency: A service account can run the tasks or operations without any human intervention or interaction, which can save time and effort.

? Reliability: A service account can run the tasks or operations consistently and accurately, which can reduce errors or failures.

NEW QUESTION 184

- (Topic 2)

An administrator recently provisioned a file server in the cloud. Based on financial considerations, the administrator has a limited amount of disk space. Which of the following will help control the amount of space that is being used?

- A. Thick provisioning
- B. Software-defined storage
- C. User quotas
- D. Network file system

Answer: C

Explanation:

User quotas are what will help control the amount of space that is being used by a file server in the cloud that has a limited amount of disk space due to financial considerations. User quotas are the limits or restrictions that are imposed on the amount of space that each user can use or consume on a file server or storage device. User quotas can help to control the amount of space that is being used by:

- ? Preventing or reducing wastage or overuse of space by users who may store unnecessary or redundant files or data on the file server or storage device.
- ? Ensuring fair and equal distribution or allocation of space among users who may have different needs or demands for space on the file server or storage device.
- ? Monitoring and managing the usage or consumption of space by users who may need to be notified or alerted when they reach or exceed their quota on the file server or storage device.

NEW QUESTION 188

- (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 193

- (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 194

- (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 195

- (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 197

- (Topic 1)

A web server has been deployed in a public IaaS provider and has been assigned the public IP address of 72.135.10.100. Users are now reporting that when they browse to the website, they receive a message indicating the service is unavailable. The cloud administrator logs into the server, runs a netstat command, and notices the following relevant output:

```
TCP 17.3.130.3:0 72.135.10.100:5500 TIME_WAIT
TCP 17.3.130.3:0 72.135.10.100:5501 TIME_WAIT
TCP 17.3.130.3:0 72.135.10.100:5502 TIME_WAIT
TCP 17.3.130.3:0 72.135.10.100:5503 TIME_WAIT
TCP 17.3.130.3:0 72.135.10.100:5504 TIME_WAIT
```

Which of the following actions should the cloud administrator take to resolve the issue?

- A. Assign a new IP address of 192.168.100.10 to the web server
- B. Modify the firewall on 72.135.10.100 to allow only UDP
- C. Configure the WAF to filter requests from 17.3.130.3
- D. Update the gateway on the web server to use 72.135.10.1

Answer: D

Explanation:

Updating the gateway on the web server to use 72.135.10.1 is the best action to take to resolve the issue of the web server being unavailable after being deployed in a public IaaS provider and assigned the public IP address of 72.135.10.100. Updating the gateway can ensure that the web server can communicate with the Internet and other networks by using the correct router or device that connects the web server's network to other networks. Updating the gateway can also improve performance and reliability, as it can avoid any routing errors or conflicts that may prevent the web server from responding to remote login requests.

References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 198

- (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 201

- (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 204

- (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 207

- (Topic 1)

A systems administrator is building a new virtualization cluster. The cluster consists of five virtual hosts, which each have flash and spinning disks. This storage is shared among all the virtual hosts, where a virtual machine running on one host may store data on another host.

This is an example of:

- A. a storage area network
- B. a network file system
- C. hyperconverged storage
- D. thick-provisioned disks

Answer: C

Explanation:

Hyperconverged storage is a type of storage architecture that combines compute, storage, and network resources into a single system or appliance. Hyperconverged storage uses software-defined storage (SDS) to pool and share the local storage of each node in the cluster, creating a distributed storage system that can be accessed by any node or virtual machine in the cluster. Hyperconverged storage can provide high performance, scalability, and efficiency for virtualized environments. The scenario of building a new virtualization cluster with five virtual hosts that share their flash and spinning disks among all the virtual hosts is an example of hyperconverged storage. References: [CompTIA Cloud+ Certification Exam Objectives], page 9, section 1.4

NEW QUESTION 212

- (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 213

- (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 218

- (Topic 1)

A cloud administrator has finished setting up an application that will use RDP to connect. During testing, users experience a connection timeout error.

Which of the following will MOST likely solve the issue?

- A. Checking user passwords
- B. Configuring QoS rules
- C. Enforcing TLS authentication
- D. Opening TCP port 3389

Answer: D

Explanation:

TCP port 3389 is the default port used by Remote Desktop Protocol (RDP) to connect to a remote system or application over a network. Opening TCP port 3389 on the firewall or network device will most likely solve the issue of users experiencing a connection timeout error when trying to use RDP to connect to an application, as it will allow RDP traffic to pass through. If TCP port 3389 is closed or blocked, RDP traffic will be denied or dropped, resulting in a connection timeout error. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

Reference: <https://docs.microsoft.com/en-us/windows-server/remote/remote-desktop-services/troubleshoot/rdp-error-general-troubleshooting>

NEW QUESTION 222

- (Topic 1)

Which of the following will mitigate the risk of users who have access to an instance modifying the system configurations?

- A. Implement whole-disk encryption
- B. Deploy the latest OS patches
- C. Deploy an anti-malware solution
- D. Implement mandatory access control

Answer: D

Explanation:

Mandatory access control (MAC) is a type of access control model that enforces strict security policies based on predefined rules and labels. MAC assigns security labels to subjects (users or processes) and objects (files or resources) and allows access only if the subject has the appropriate clearance and need-to-know for the object. MAC can mitigate the risk of users who have access to an instance modifying the system configurations, as it can prevent unauthorized or accidental changes to critical files or settings by restricting access based on predefined rules and labels. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 223

- (Topic 1)

A SaaS provider wants to maintain maximum availability for its service. Which of the following should be implemented to attain the maximum SLA?

- A. A hot site
- B. An active-active site
- C. A warm site
- D. A cold site

Answer: B

Explanation:

An active-active site is a type of disaster recovery (DR) site that runs simultaneously with the primary site and handles part of the normal workload or traffic. An active-active site can help maintain maximum availability for a SaaS service, as it can provide load balancing, redundancy, and failover capabilities for the SaaS service in case of an outage or disruption at the primary site. An active-active site can also improve performance and scalability, as it can distribute the workload or traffic across multiple sites and handle increased demand or peak periods. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5

NEW QUESTION 228

- (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 233

- (Topic 1)

A systems administrator recently deployed a VDI solution in a cloud environment; however, users are now experiencing poor rendering performance when trying to display 3-D content on their virtual desktops, especially at peak times.

Which of the following actions will MOST likely solve this issue?

- A. Update the quest graphics drivers from the official repository
- B. Add more vGPU licenses to the host
- C. Instruct users to access virtual workstations only on the VLAN
- D. Select vGPU profiles with higher video RAM

Answer: D

Explanation:

A vGPU profile is a configuration option that defines the amount of video RAM (vRAM) and other resources that are allocated to a virtual machine (VM) that uses a virtual graphics processing unit (vGPU). A vGPU profile can affect the rendering performance of a VM, as it determines how much graphics memory and processing power are available for displaying complex graphics content. Selecting vGPU profiles with higher video RAM can most likely solve the issue of poor rendering performance when trying to display 3-D content on virtual desktops, especially at peak times, as it can provide more graphics resources and improve the quality and speed of rendering. References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6

NEW QUESTION 236

- (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 239

- (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 240

- (Topic 4)

Which of the following are advantages of a public cloud? (Select TWO).

- A. Full control of hardware
- B. Reduced monthly costs
- C. Decreased network latency
- D. Pay as you use
- E. Availability of self-service
- F. More secure data

Answer: BD

Explanation:

The correct answers are B and D.

* B. Reduced monthly costs: One of the main advantages of public cloud is that it lowers the costs of IT infrastructure and maintenance for the customers. They do not need to purchase, install, or manage any hardware or software, and they only pay for the resources they use. This can result in significant savings compared to owning and operating a private cloud or an on-premise data center¹²³⁴

* D. Pay as you use: Another benefit of public cloud is that it offers a flexible and scalable pricing model based on the actual usage of the customers. They can adjust their resource consumption according to their changing needs and demands, and only pay for what they use. This eliminates the need for upfront capital investment or long-term contracts, and allows customers to optimize their spending and performance¹²³⁴

NEW QUESTION 245

- (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 250

- (Topic 4)

A cloud administrator created a developer desktop image and added it to the VDI farm in a private cloud environment. One of the developers opened a VDI session and noticed that compiling the code was taking up to one hour to complete. However, when the developer compiles the code on a local machine, the job completes in less than five minutes. Which of the following sizing techniques would be best to use to improve the performance of the compile job?

- A. Add more servers to the VDI environment.
- B. Increase the CPU and the memory on the VDI template.
- C. Configure the VDI environment to increase sessions automatically.
- D. Migrate code compile jobs to a public cloud provider.

Answer: B

Explanation:

The most likely cause of the poor performance of the compile job is that the VDI template does not have enough CPU and memory resources to handle the task efficiently. Compiling code is a CPU-intensive and memory-intensive process that requires sufficient computing power to run smoothly. By increasing the CPU and memory on the VDI template, the cloud administrator can improve the performance of the compile job and reduce the time it takes to complete. Adding more servers to the VDI environment or configuring the VDI environment to increase sessions automatically would not help, as they would only affect the scalability and availability of the VDI farm, not the performance of individual sessions. Migrating code compile jobs to a public cloud provider would incur additional costs and complexity, and may not be feasible or desirable for the organization. References: The Official CompTIA Cloud+ Self-Paced Study Guide (CV0-003) eBook, Chapter 3, Section 3.3, page 971

NEW QUESTION 252

- (Topic 4)

Which of the following enables CSPs to offer unlimited capacity to customers?

- A. Adequate budget
- B. Global data center distribution
- C. Economies of scale
- D. Agile project management

Answer: C

Explanation:

The correct answer is C. Economies of scale.

Economies of scale are the cost advantages that CSPs can achieve by increasing the size and scale of their operations. By spreading the fixed costs of infrastructure, software, and personnel over a larger customer base and data volume, CSPs can reduce the average cost per unit of service and offer unlimited capacity to customers at competitive prices¹. Adequate budget is not a sufficient condition for offering unlimited capacity, as CSPs still need to optimize their resource utilization and efficiency to meet the growing demand for data storage and processing.

Global data center distribution is a strategy that CSPs use to improve their service availability, reliability, and performance by locating their servers closer to their customers and reducing network latency. However, this does not necessarily imply unlimited capacity, as CSPs still need to manage the trade-offs between data center size, cost, and power consumption.

Agile project management is a methodology that CSPs use to deliver their services faster, better, and cheaper by adopting iterative, incremental, and collaborative approaches. However, this does not directly affect their capacity, as CSPs still need to scale their infrastructure and software to handle the increasing data load.

NEW QUESTION 256

- (Topic 4)

A systems administrator is reviewing the logs from a company's IDS and notices a large amount of outgoing traffic from a particular server. The administrator then runs a scan on the server, which detects malware that cannot be removed. Which of the following should the administrator do first?

- A. Determine the root cause.
- B. Disconnect the server from the network.
- C. Perform a more intrusive scan.
- D. Restore the server from a backup.

Answer: B

Explanation:

The first step in any incident response procedure is to contain the incident and prevent it from spreading or causing more damage. In this scenario, the systems administrator is reviewing the logs from a company's IDS and notices a large amount of outgoing traffic from a particular server. The administrator then runs a scan on the server, which detects malware that cannot be removed. This indicates that the server is compromised and may be sending malicious or sensitive data to an external source. Therefore, the best thing to do first is to disconnect the server from the network, which will isolate it from the rest of the system and stop the data exfiltration. Determining the root cause, performing a more intrusive scan, and restoring the server from a backup are all important steps, but they should be done after the server is disconnected from the network. References: CompTIA Cloud+ CV0-003 Certification Study Guide, Chapter 10, Incident Response Procedures, page 1771.

NEW QUESTION 260

- (Topic 4)

A cloud engineer is migrating a customer's web servers from a hypervisor platform to a CSP environment. The engineer needs to decouple the infrastructure and components during the migration to reduce the single points of failure. Which of the following storage options should the cloud engineer migrate the content to in order to improve availability?

- A. Block
- B. File
- C. Object
- D. iSCSI
- E. NFS

Answer: C

Explanation:

Object storage is a storage option that stores data as discrete units called objects, which are identified by a unique identifier and can have metadata attached to them. Object storage can help the cloud engineer migrate the content to improve availability by decoupling the data from the underlying infrastructure and components. Object storage can also provide high scalability, durability, and redundancy for the data, as well as support for multiple protocols and access methods. Object storage can be accessed through APIs, web interfaces, or gateways that can emulate file or block storage. Object storage is suitable for storing unstructured or static data, such as web content, images, videos, or documents. References: CompTIA Cloud+ CV0-003 Certification Study Guide, Chapter 4, Objective 4.1: Given a scenario, implement cloud storage solutions.

NEW QUESTION 265

- (Topic 4)

A systems administrator is attempting to gather information about services and resource utilization on VMS in a cloud environment. Which of the following will BEST accomplish this objective?

- A. Syslog
- B. SNMP
- C. CMDB
- D. Service management
- E. Performance monitoring

Answer: E

Explanation:

Performance monitoring is the process of collecting and analyzing metrics related to the performance and availability of resources in a cloud environment¹. Performance monitoring can help a systems administrator to gather information about services and resource utilization on VMs in a cloud environment by providing the following benefits²:

- ? Identify and troubleshoot performance issues and bottlenecks before they affect the end users or business operations.
- ? Optimize the resource allocation and configuration to meet the performance requirements and SLAs of the services.
- ? Plan for future capacity and scalability needs based on the historical trends and patterns of resource utilization.
- ? Compare the performance and costs of different cloud service providers, regions, and SKUs.

Some of the tools and services that can help with performance monitoring in a cloud environment are³:

- ? Azure Monitor: A comprehensive service that provides a unified view of the health, performance, and availability of your Azure resources, applications, and services. Azure Monitor collects metrics, logs, and traces from various sources and provides analysis, visualization, alerting, and automation capabilities.
- ? Azure Advisor: A personalized service that provides recommendations to optimize your Azure resources for performance, security, cost, reliability, and operational excellence. Azure Advisor analyzes your resource configuration and usage data and suggests best practices to improve your cloud environment.
- ? Azure Application Insights: A service that monitors the performance and usage of your web applications and services. Application Insights collects telemetry data such as requests, dependencies, exceptions, page views, custom events, and metrics from your application code and provides powerful analytics, diagnostics, and alerting features.
- ? Azure Log Analytics: A service that collects and analyzes data from various sources such as Azure Monitor, Azure services, VMs, containers, applications, and other cloud or on-premises systems. Log Analytics enables you to query, visualize, and correlate log data using the Kusto Query Language (KQL) and create custom dashboards and reports.

Syslog is a standard protocol for sending log messages from network devices to a central server. Syslog can help with logging and auditing activities in a cloud environment, but it does not provide performance monitoring capabilities. Therefore, option A is incorrect. SNMP (Simple Network Management Protocol) is a protocol for collecting and organizing information about managed devices on a network. SNMP can help with network management and monitoring in a cloud environment, but it does not provide comprehensive performance monitoring for VMs and services. Therefore, option B is incorrect.

CMDB (Configuration Management Database) is a database that stores information about the configuration items (CIs) in an IT environment. CMDB can help with configuration management and change management in a cloud environment, but it does not provide performance monitoring capabilities. Therefore, option C is incorrect.

Service management is a set of processes and practices that aim to deliver value to customers by providing quality services that meet their needs and expectations. Service management can help with service design, delivery, support, and improvement in a cloud environment, but it does not provide performance monitoring capabilities. Therefore, option D is incorrect.

NEW QUESTION 267

- (Topic 4)

A cloud administrator needs to deploy a security virtual appliance in a private cloud environment, but this appliance will not be part of the standard catalog of items for other users to request. Which of the following is the BEST way to accomplish this task?

- A. Create an empty V
- B. import the hard disk of the virtual appliance
- C. and configure the CPU and memory.
- D. Acquire the build scripts from the vendor and recreate the appliance using the baseline templates
- E. Import the virtual appliance into the environment and deploy it as a VM
- F. Convert the virtual appliance to a template and deploy a new VM using the template.

Answer: C

Explanation:

The correct answer is C. Import the virtual appliance into the environment and deploy it as a VM.

A virtual appliance is a pre-packaged and pre-configured software solution that runs on a virtual machine (VM). A virtual appliance typically consists of an

operating system, an application, and any required dependencies, and is designed to provide a specific function or service. A virtual appliance can be distributed as a single file or a set of files that can be imported into a virtualization platform, such as VMware, Hyper-V, or KVM .

A cloud administrator can deploy a security virtual appliance in a private cloud environment by importing the virtual appliance into the environment and deploying it as a VM. This is the best way to accomplish this task because it preserves the original configuration and functionality of the virtual appliance, and does not require any additional installation or customization. The cloud administrator can also control the access and visibility of the virtual appliance, and prevent other users from requesting it from the standard catalog of items .

Creating an empty VM, importing the hard disk of the virtual appliance, and configuring the CPU and memory is not the best way to accomplish this task because it involves more steps and complexity than importing the virtual appliance as a whole. It also introduces the risk of losing or corrupting some data or settings during the import process, or misconfiguring the CPU and memory for the virtual appliance.

Acquiring the build scripts from the vendor and recreating the appliance using the baseline templates is not the best way to accomplish this task because it involves more time and effort than importing the virtual appliance directly. It also depends on whether the vendor provides the build scripts or not, and whether they are compatible with the baseline templates or not.

Converting the virtual appliance to a template and deploying a new VM using the template is not the best way to accomplish this task because it adds an unnecessary step of creating a template from the virtual appliance. It also does not prevent other users from accessing or requesting the template from the catalog of items.

NEW QUESTION 272

- (Topic 4)

A cloud administrator who is troubleshooting DNS issues discovers zone transfers are not occurring between the primary and secondary name servers due to an error in the serial numbers. Which of the following records should the administrator query for the serial number?

- A. PTR
- B. TXT
- C. SOA
- D. SRV

Answer: C

Explanation:

SOA stands for Start of Authority, and it is a type of DNS record that contains information about a DNS zone, such as the name of the primary name server, the email address of the zone administrator, the serial number of the zone, and other parameters. The serial number is used to indicate when a zone has been updated, and it is incremented by the primary name server whenever a change is made to the zone data. The secondary name servers use the serial number to determine if they need to request a zone transfer from the primary name server to synchronize their data.

References: [CompTIA Cloud+ Study Guide], page 207.

NEW QUESTION 275

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