VMware vSphere 6 Virtualization of Computer Resource Practice Test (Sample)

Study Guide

BY EXAMZIFY

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Questions

1. **Prior to vSphere 6.0, has NFS 4.1 been supported for many years?**

   A. True

   B. False

   C. Only in limited environments

   D. Only in test cases

2. **What does a vSphere Fault Domain represent?**

   A. A collection of VMs configured for redundancy

   B. A designated group of resources that may fail together

   C. A type of storage that supports high availability

   D. A network zone for secure communication

3. **Which key combination is used to release control of a VM window?**

   A. Ctrl + Alt

   B. Ctrl + Shift

   C. Alt + F4

   D. Shift + Esc

4. **What is the function of the Distributed Switch in VMware vSphere?**

   A. To provide individual network management for each host

   B. To centralize network management across all hosts

   C. To optimize virtual machine graphics

   D. To facilitate system updates for virtual machines

5. **What do the three A's represent in the AAA security model?**

   A. Access, Authentication, Accountability

   B. Authentication, Authorization, Accounting

   C. Access, Authorization, Audit

   D. Authentication, Access, Approval

6. **What is an HA admission control policy?**

   A. It allocates additional resources for VM growth.

   B. It ensures resources for failover scenarios.

   C. It monitors user access to VMs.

   D. It optimizes storage allocation for VMs.

7. **What technology does vSphere Storage DRS use to automatically determine the best datastore for VM files during creation?**

   A. Dynamic Allocation

   B. Intelligent Placement

   C. Manual Selection

   D. Automated Distribution

8. **FCoE allows for the transmission of which type of traffic?**

   A. Lossy Ethernet traffic

   B. Lossless Ethernet traffic

   C. High-latency traffic

   D. Standard Ethernet traffic

9. **What happens to memory pages that cannot be efficiently compressed in vSphere 6?**

   A. They are deleted

   B. They are sent to the hypervisor for archival

   C. They are written to disk

   D. They are immediately reallocated

10. **Which component is primarily responsible for managing VMware resources?**

    A. Data Center

    B. vSphere Client

    C. Virtual Center Server

    D. Storage Adapter

Answers

1. **B**
2. **B**
3. **A**
4. **B**
5. **B**
6. **B**
7. **B**
8. **B**
9. **C**
10. **C**

Explanations

1. Prior to vSphere 6.0, has NFS 4.1 been supported for many years?

A. True

B. False

C. Only in limited environments

D. Only in test cases

NFS 4.1 was not supported in previous versions of vSphere prior to version 6.0. VMware vSphere 6.0 marked the introduction of official support for NFS 4.1 alongside significant enhancements in the VMware environment, allowing for features like improved performance and better security. This integration was a crucial development for users utilizing NFS storage solutions in virtualized environments.   The previous versions primarily supported NFS 3, which lacked some of the enhancements and functionalities that NFS 4.1 offers. Therefore, stating that NFS 4.1 had been supported for many years prior to vSphere 6.0 is inaccurate, confirming that the correct response to the statement is that it is false. This knowledge is vital for understanding how VMware has evolved in its support for various storage protocols over time, particularly in terms of bringing more robust options to customers using NFS.

2. What does a vSphere Fault Domain represent?

A. A collection of VMs configured for redundancy

B. A designated group of resources that may fail together

C. A type of storage that supports high availability

D. A network zone for secure communication

A vSphere Fault Domain is defined as a designated group of resources that may fail together due to shared dependencies or risks. This concept is crucial in the context of ensuring high availability and disaster recovery within virtualized environments.   By identifying and configuring fault domains, administrators can strategically distribute virtual machines and their associated workloads across different physical hosts or other infrastructure components to minimize the impact of potential failures. This means that if one part of the infrastructure fails, it is isolated to a specific fault domain, and other domains remain functional, allowing continued operations and service delivery. In contrast, the other options refer to slightly different concepts that do not capture the essence of a fault domain. While redundancy (as suggested in the first option) is important for high availability, it does not define a fault domain, which is more about collective risk. The mention of storage that supports high availability could relate to specific technologies like VMFS, but it does not directly represent the concept of a fault domain. Lastly, a network zone for secure communication pertains to network segmentation and security rather than the resource grouping that defines fault domains.

3. Which key combination is used to release control of a VM window?

A. Ctrl + Alt

B. Ctrl + Shift

C. Alt + F4

D. Shift + Esc

The key combination used to release control of a virtual machine (VM) window in VMware environments is Ctrl + Alt. This combination is crucial when working with virtual machines because it allows the user to regain control of their host operating system's mouse and keyboard without the need to click outside the VM window or disrupt the session. When a VM is running in full screen or windowed mode, the VM capture might prevent the mouse pointer from interacting with the host OS until it is released. By pressing Ctrl + Alt, the user signals to the VMware software that they want to exit the VM's control, effectively allowing them to seamlessly switch back to their host. This technique enhances user experience by making navigation between the host and VM smoother and more intuitive. The other key combinations listed serve different functions and do not facilitate the release of VM control. Thus, understanding the function of Ctrl + Alt in this context is essential for anyone working with VMware virtualization software.

4. What is the function of the Distributed Switch in VMware vSphere?

A. To provide individual network management for each host

B. To centralize network management across all hosts

C. To optimize virtual machine graphics

D. To facilitate system updates for virtual machines

The function of the Distributed Switch in VMware vSphere is to centralize network management across all hosts. This design allows administrators to manage networking for multiple hosts from a single interface, simplifying the process of configuring and managing virtual networks. With a Distributed Switch, networking policies can be applied at a data center level rather than having to configure each individual host separately. This leads to improved consistency and compliance across the virtual networking environment, making management more efficient and reducing the risk of configuration errors. Centralized management also facilitates better monitoring and performance optimization, allowing for features like traffic shaping, network I/O control, and port mirroring to be uniformly applied across virtual machines hosted on different ESXi hosts. The Distributed Switch is particularly beneficial in environments with many hosts and virtual machines, as it enhances the scalability and ease of management in complex networking scenarios.

5. What do the three A's represent in the AAA security model?

A. Access, Authentication, Accountability

B. Authentication, Authorization, Accounting

C. Access, Authorization, Audit

D. Authentication, Access, Approval

The three A's in the AAA security model stand for Authentication, Authorization, and Accounting. This model is fundamental in security frameworks as it defines a comprehensive approach to managing and controlling access to resources. Authentication is the first step, where the system verifies the identity of a user or device trying to access it. This can involve passwords, tokens, biometric scans, or other methods to ensure that the identity presented is legitimate. Authorization comes next, determining what an authenticated user is allowed to do. It defines permissions and access rights, ensuring that users can only access resources that they are authorized to use, which helps in enforcing security policies. Finally, Accounting provides a way to track user activities within a system. It logs events and actions so that they can be audited later. This is essential for security compliance and for analyzing any potential breaches or unauthorized activities. This structured approach ensures robust security management in various environments, including virtualization platforms like VMware, where controlling access and monitoring resource usage is crucial.

6. What is an HA admission control policy?

A. It allocates additional resources for VM growth.

B. It ensures resources for failover scenarios.

C. It monitors user access to VMs.

D. It optimizes storage allocation for VMs.

An HA admission control policy is designed to ensure resources are preserved for scenarios in which virtual machines (VMs) might fail over due to host failures. When a host becomes unavailable, HA admission control guarantees that the remaining hosts have enough resources to restart the VMs that were running on the failed host. This is crucial because if a failure occurs, the VMs need to be quickly and efficiently brought back online, and the admission control policy effectively manages the cluster resources to maintain the desired level of availability. The policy typically specifies resource reservations based on the total number of powered-on VMs and the expected failover requirements. By doing this, it prevents the situation where there are insufficient resources to accommodate VMs after a failure, thereby maintaining the operational integrity of the virtualized environment.

7. What technology does vSphere Storage DRS use to automatically determine the best datastore for VM files during creation?

A. Dynamic Allocation

B. Intelligent Placement

C. Manual Selection

D. Automated Distribution

vSphere Storage DRS utilizes Intelligent Placement technology to analyze the characteristics and performance of available datastores to determine the optimal datastore for virtual machine files during their creation. This process takes into account factors such as current workload, datastore utilization, and other performance metrics to ensure that the VMs are placed in a way that maximizes resource efficiency and minimizes contention.   This automatic decision-making capability enhances overall resource management, enabling a more streamlined and optimized storage environment. By leveraging Intelligent Placement, vSphere Storage DRS can help prevent performance bottlenecks and improve the performance of virtual machines by making intelligent choices based on real-time data analysis.   In contrast, other options like Dynamic Allocation, Manual Selection, or Automated Distribution don't specifically represent the automatic analysis and selection aspects that define Intelligent Placement.

8. FCoE allows for the transmission of which type of traffic?

A. Lossy Ethernet traffic

B. Lossless Ethernet traffic

C. High-latency traffic

D. Standard Ethernet traffic

FCoE, or Fibre Channel over Ethernet, is designed specifically to transmit lossless Ethernet traffic. This is crucial because FCoE enables the encapsulation of Fibre Channel frames within Ethernet frames while maintaining the quality of service required by storage protocols. The lossless nature of the Ethernet traffic used in FCoE implementations is achieved through mechanisms like Priority Flow Control (PFC) which prevents data loss during congestion by blocking lower-priority traffic. In storage networking, particularly when dealing with critical data transfers, it's vital that the transmitted data retains integrity without loss. This sets FCoE apart from standard Ethernet traffic, which might not guarantee lossless transmission. Therefore, the correct choice reflects the fundamental requirement for reliable and efficient data transport in an FCoE architecture.

9. What happens to memory pages that cannot be efficiently compressed in vSphere 6?

A. They are deleted

B. They are sent to the hypervisor for archival

C. They are written to disk

D. They are immediately reallocated

In vSphere 6, when memory pages cannot be efficiently compressed, the system will write those pages to disk. This mechanism is part of the memory management capabilities in virtualization, where the hypervisor makes decisions on optimizing and managing memory resources effectively.   Writing pages to disk allows the hypervisor to manage memory more flexibly and ensures that the active memory usage stays efficient while providing a solution for memory pressure situations. This process can involve using a swap file or leveraging VMkernel memory, enabling the system to maintain performance levels even when physical memory resources are constrained. The other options don't accurately reflect the behavior of vSphere's memory management. For example, simply deleting pages would lead to loss of data, whereas sending them for archival or reallocation does not align with how vSphere handles memory that it cannot efficiently compress. The approach of writing to disk allows for a more strategic use of limited resources.

10. Which component is primarily responsible for managing VMware resources?

A. Data Center

B. vSphere Client

C. Virtual Center Server

D. Storage Adapter

The component primarily responsible for managing VMware resources is the Virtual Center Server. This server plays a critical role in the VMware infrastructure by providing centralized management and monitoring of virtualized resources across multiple hosts and data centers. It allows administrators to perform tasks such as provisioning virtual machines, balancing workloads, and configuring clusters. The Virtual Center Server integrates various functions such as resource management, monitoring performance, and automating resource allocation to ensure optimal utilization of both compute and storage resources. Additionally, features like vMotion, Distributed Resource Scheduler (DRS), and High Availability (HA) are managed through the Virtual Center Server, enhancing the overall efficiency and reliability of the virtual environment. In contrast, while the Data Center represents a logical grouping of resources, and the vSphere Client serves as the interface for users to interact with the VMware infrastructure, neither directly performs resource management tasks at the level of the Virtual Center Server. The Storage Adapter, while important for connecting storage resources, does not manage the overall VMware resources but rather facilitates connectivity to storage systems.