Number: 5V0-21.21
Passing Score: 800
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Exam Code: 5V0-21.21

Exam Name: VMware HCI Master Specialist

Exam A

QUESTION 1
A company has engaged a consultant to upgrade an existing vSAN cluster to vSAN 7.0 U1. The company wants to ensure that the same vSAN process can be used in the future.
During the discovery phase, the consultant found the following information about the existing environment:
* The vCenter Server is currently version 7.0.
* The vSAN Cluster has the following configuration:
- vSAN version: 7.0
- Number of vSAN nodes: 6
- Encryption: enabled
- Deduplication and Compression: enabled
- Fault Domains: 1
- vSAN Capacity Utilization: 60%
* Each vSAN node has the following configuration:
- ESXi version: VMware vSphere 7.0
- CPU: 2 processors, 20 cores
- RAM: 1024GB RAM.
- Disk: 2 Cache SSDs and 6 Capacity SSDs
- Network: 4 x 10GbE
* All current hardware (which is from a single vendor) is listed on the vSAN Compatibility Guide for vSAN 7.
Which three recommendations should the consultant make to ensure that the vSAN cluster upgrade is completed? (Choose three.)

A. Upgrade all vSAN nodes to VMware vSphere 7.0 U1 using the baselines capability within VMware Update Manager (VUM).
B. Disable vSAN Encryption before starting the upgrade process.
C. Upgrade all vSAN nodes to VMware vSphere 7.0 U1 using the images capability within VMware Update Manager (VUM).
D. Set VMware Distributed Resource Scheduling (DRS) to partially automated.
E. Upgrade to VMware vCenter Server 7.0 U1.
F. Choose the Allow reduced redundancy option.

Correct Answer: A, E, F
Section:
Explanation:
'vSAN build recommendations are provided through vSAN system baselines for vSphere Lifecycle Manager. These system baselines are managed by vSAN. They are read-only and cannot be customized.'
https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan.doc/GUID-E87F7946-1EDE-45EE-9087-823F7E61FABF.html

QUESTION 2
An administrator of ''vsan-prod'' cluster noticed the witness components of VMs are flagged as absent after a failed attempt to replace the vSAN Witness Host.
Which action should the administrator take to resolve this issue?

A. Upgrading the vSAN on-disk format
B. Running the vSAN Skyline Health check to ensure there are vSAN Object Health errors and executing the Repair Object Immediately option
C. Using the RVC command: vsan.resync_dashboard ~/computers/vsan-prod
D. Placing the vSAN Witness Host in Maintenance Mode and adding to the vSAN cluster

Correct Answer: B

Section:

QUESTION 3
An 8-Node vSAN Stretched Cluster (4+4+1) with a single disk group has a policy with PFTT=1 (mirrored across sites) and SFTT=1/FTM Mirroring (Local Protection) configured.
The administrator has been alerted that there is a problem with the cluster. The following has been observed:
* The vSAN Witness Host is offline.
* Two disk failures on two hosts have occurred in the preferred site.
This has resulted in a critical production virtual machine's vmdk becoming inaccessible.
Which step needs to be performed by the administrator to resolve the issue?

A. Replace all failed disks on the preferred site.
B. Replace the vSAN Witness Host
C. Replace access to the existing vSAN Witness Host
D. Replace only one failed disk on the preferred site.

Correct Answer: C
Section:
Explanation:
the vSAN Witness Host offline and 2 failures in the Preferred Site. In each of the above failure cases, restoring access to the existing vSAN Witness would make the object accessible. ... Deploying a new vSAN Witness would not because the components would not be present. https://core.vmware.com/resource/vsan-stretched-cluster-guide#sec7373-sub5

QUESTION 4
An administrator is tasked to create a custom storage policy for workloads and is including additional disk stripes while defining the storage policy.
What is the main purpose of this practice?

A. To increase available storage space
B. To set a failure tolerance
C. To improve performance
D. To reconstruct corrupted data

Correct Answer: C
Section:
Explanation:
https://blogs.vmware.com/virtualblocks/2016/09/19/vsan-stripes/ Striping may help performance if certain virtual machines are I/O intensive and others are not.
The ''number of disk stripes per object'' storage policy rule attempts to improve performance by distributing data contained in a single object (such as a VMDK) across more capacity devices.
https://blogs.vmware.com/virtualblocks/2021/01/21/stripe-width-improvements-in-vsan-7-u1/

QUESTION 5
An architect collected the below technical requirements from the customer during a vSAN cluster design workshop:
* Maximize the vSAN datastore usable capacity.
* Deduplication and compression are required to help utilize available capacity efficiency.
* Ensure the highest level of resiliency wherever possible.
Which disk group configuration should the architect include in the design?

A. One disk group per host, with one cache tier flash disk and four capacity tier flash disks.
B. Two disk groups per host, each with one cache tier flash disk and four capacity tier flash disks.
C. Two disk groups per host, each with one cache tier flash disk and six capacity tier flash disks.
D. Two disk groups per host, each with one cache tier flash disk and six capacity tier magnetic disks.

Correct Answer: C
Section:

QUESTION 6
During a vSAN design workshop, a customer expressed a requirement to decommission an existing enterprise NAS device that provides iSCSI services for a clustered application.
Based on the current state analysis, the following information was noted:
* Current utilization is 500 LUNs.
* All clustered workloads are configured for Multiple Connections per Session.
* LUN sizes range between 10 TB to 30 TB.
What should the architect state regarding the requirements?

A. All requirements can be satisfied without any change.
B. Only single connection per session is supported.
C. The number of LUNs require additional licensing.
D. It is a best practice to maintain a LUN size of 8 TB.

Correct Answer: B
Section:
Explanation:
https://kb.vmware.com/s/article/57344

QUESTION 7
An administrator has noticed that a number of the virtual machines in the preferred site are showing as either failed or partitioned.
In which two ways would the administrator expect the virtual machines to respond? (Choose two.)

A. They will be disconnected.
B. They will be restarted in the secondary site.
C. They will be restarted at the preferred site.
D. They will be powered off.
E. They will be removed from inventory.

Correct Answer: B, D
Section:
Explanation:
https://core.vmware.com/resource/vsan-stretched-cluster-guide#site-failure-or-network-partitions

QUESTION 8
An administrator notes that the Data-At-Rest Encryption keys have expired.
Which action is needed to resolve this situation?

A. Add a new Standard Key Provider at the vSAN cluster level
B. Generate new encryptions keys at the vSAN cluster level
C. Add an additional KMS at the vCenter server level
D. Generate new encryptions keys at the vCenter server level

Correct Answer: B
Section:
Explanation:

https://docs.vmware.com/en/VMware-vSphere/8.0/vsan-administration/GUID-15393A27-5F38-4814-94E0-ED37A7E65249.html

QUESTION 9
In a stretched vSAN cluster, how is Read Locality established after fail over to the secondary site?

A. 100% of the reads comes from vSAN hosts on the local site
B. 50% of the reads comes from vSAN hosts on the local site
C. 100% of the reads comes from vSAN hosts on the remote site
D. 50% of the reads comes from vSAN hosts on the remote site

Correct Answer: C
Section:
Explanation:
In the event of a failure or maintenance event, the virtual machine is restarted on the remote site. The 100% rule continues in the event of a failure. This means that the virtual machine will now read from the replica on the site to which it has failed over. One consideration is that there is no cached data on this site, so cache will need to warm for the virtual machine to achieve its previous levels of performance.

QUESTION 10
In a vSAN stretched cluster, which value must be set in the vSAN policy if there is no requirement for data mirroring across sites?

A. SFTT = 0
B. SFTT = 1
C. PFTT = 1
D. PFTT = 0

Correct Answer: D
Section:
Explanation:
PFTT can be seen as ''site failures'', and you can always only tolerate 1 at most. SFTT can be seen as host failures, and you can define this between 0 and 3 https://www.yellow-bricks.com/2018/03/19/vsan-stretched-cluster-pftt-and-sftt-what-happens-when-a-full-site-fails-and-multiple-hosts-fail/

QUESTION 11
An architect needs to automate an infrastructure that supports VMware Horizon as well as VMware Tanzu.
Which solution mandates the use of VMware vSAN?

A. VMware Cloud Foundation
B. VMware Horizon
C. VMware Tanzu
D. VMware vRealize Automation

Correct Answer: A
Section:
Explanation:
https://docs.vmware.com/en/VMware-Cloud-Foundation/3.10/vcf-deploy/GUID-E493608B-D4B6-4C98-96CA-5D2D723ACE55.html

QUESTION 12
An administrator is setting up vSAN file services on a vSAN cluster.
Which two security policies on the distributed port groups are automatically enabled in the process? (Choose two.)

A. Forged Transmits
B. Promiscuous Mode
C. DVFiltering
D. Jumbo Frames
E. MacLearning

Correct Answer: A, E
Section:
Explanation:
https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan.doc/GUID-CA9CF043-9434-454E-86E7-DCA9AD9B0C09.html MacLearning and Forged Transmits are enabled as part of the vSAN File Services enablement process for a provided DVS port group.

QUESTION 13
An administrator is planning to change a vSAN Storage Policy to apply a Failures To Tolerate (FTT) of 2, using RAID-6.
What is the minimum number of vSAN nodes required?

A. 6
B. 4
C. 5
D. 8

Correct Answer: A
Section:

QUESTION 14
An administrator is planning to deploy workloads on a six node vSAN cluster, and all nodes are distributed equally across three racks.
Which action is required to ensure that the workload VMs remain compliant with the default vSAN policy after a complete rack failure?

A. Add an additional rack with two hosts, and configure vSAN with four fault domains and FTT=1 (erasure coding).
B. Add two additional hosts per rack, and configure vSAN with three fault domains and FTT=1.
C. Add an additional host per rack, and configure vSAN with three fault domains and FTT=2.
D. Add an additional rack with two hosts, and configure vSAN with four fault domains and FTT=1 (mirroring).

Correct Answer: D
Section:
Explanation:
Adding an additional rack with two hosts and configuring vSAN with four fault domains and FTT=1 (mirroring) will ensure that the workload VMs remain compliant with the default vSAN policy after a complete rack failure. This is because FTT=1 (mirroring) will provide the highest level of redundancy and ensure that if one rack fails, the other racks can still provide the necessary data to remain compliant.

QUESTION 15
A company has deployed a 12-node (6-6-1) vSAN 7.0 stretched cluster for all production workloads.
The customer currently uses four different vSAN storage policies for running the workloads depending on the applications requirements:
* Policy 1 - Site Disaster Tolerance=Dual Site Mirroring, FTT=Erasure Coding
* Policy 2 - Site Disaster Tolerance=Dual Site Mirroring, FTT=Mirroring
* Policy 3 - Site Disaster Tolerance=None - Keep Data on Preferred, FTT=Mirroring
* Policy 4 - Site Disaster Tolerance=None - Keep Data on Non-Preferred, FTT=Mirroring
During the setup of the vSAN stretched cluster, the following VM/Host Rules were created:

* Preferred Site - Preferred Site workloads should run on DC1 hosts.
* Secondary Site - Secondary Site workloads should run on DC2 hosts.
Which two activities should the administrator complete to ensure that there is no impact to production services during the maintenance window in the Preferred Site? (Choose two.)

A. Change the Site Disaster Tolerance setting in Policy 3 to be ''Dual Site Mirroring''.
B. Update vSphere DRS site affinity rules so that Preferred Site workloads should not run on hosts in DC1.
C. Change the Site Disaster Tolerance setting in Policy 4 to be ''None - Keep Data on Preferred''.
D. Change the FTT setting in Policy 3 to be ''Erasure Coding''.
E. Update vSphere DRS site affinity rules so that Preferred Site workloads must run on hosts in DC2.

Correct Answer: A, E
Section:

QUESTION 16
An administrator wants to deploy Kubernetes on an end-to-end VMware stack, using VMware vSAN for storage.
Which VMware product should the administrator install as the Kubernetes platform choice?

A. VMware Tanzu Kubernetes Grid
B. VMware Tanzu Data services
C. VMware Tanzu Build service
D. VMware Tanzu Mission Control

Correct Answer: A
Section:
Explanation:
https://docs.vmware.com/en/VMware-Tanzu-Kubernetes-Grid-Integrated-Edition/index.html There is a picture with integration with vSAN

QUESTION 17
An administrator is tasked with preparing for a Cross vCenter migration in a stretched vSAN cluster where the virtual machines migration will be orchestrated via VMware Site Recovery Manager.
Which action should the administrator take so the migration is successful?

A. Disable vSAN Deduplication and Compression
B. Reconfigure vCenter HA Admission control
C. Enable vCenter Single Sign-On Enhanced Linked Mode
D. Make sure that Witness traffic is on the management NIC.

Correct Answer: C
Section:

QUESTION 18
As a part of a network hardware refresh project, all the network switches have been replaced with a newer, high-performance model. After the replacement, the company users started experiencing slowness on the applications hosted on their vSAN-backed VMs.
The vSAN administrator checked the vSAN Network Health status and noticed that the 'Hosts large ping test' has failed.
What could be the cause of this performance degradation issue?

A. MTU 9K is not configured on the hosts vSAN vMKernel ports.
B. MTU 9K is not configured on the hosts VMnic ports.

C. MTU 9K is not configured on the ToR switch.
D. MTU 9K is not configured on the vDS switch.

Correct Answer: C
Section:
Explanation:
https://kb.vmware.com/s/article/2108285

QUESTION 19
An administrator would like to upgrade ten identically configured 2-node vSAN clusters from vSAN 6.7 U3 to vSAN 7.0 U1. Currently, each 2-node vSAN cluster is using a dedicated vSAN witness host appliance. As a result of the upgrade, the administrator would like to leverage the vSAN shared witness feature to reduce the resources being consumed.
In preparation for the first vSAN cluster upgrade, the administrator has completed the following tasks:
1. Upgraded vCenter Server to vCenter Server 7.0 U1.
2. vSphere High Availability (HA) has been disabled on the vSAN Cluster.
3. Upgraded the vSAN witness host appliance to vSphere 7.0 U1.
4. Upgraded both vSAN data nodes to vSphere 7.0 U1.
The key requirement is to ensure that backwards compatibility to the existing version of vSAN is maintained during the upgrade process.
Which three additional steps should the administrator complete to ensure that subsequent clusters can share the same vSAN Witness? (Choose three.)

A. Upgrade the vSAN On-Disk Format (ODF) to version 12.
B. Manually update the vSAN Witness with a vSAN 7 license key.
C. Update the vSAN cluster to use the new vSAN witness host appliance.
D. Configure the existing witness host appliance to act as a shared witness.
E. Deploy a new vSAN 7.0 U1 witness host appliance to act as a shared witness.
F. Upgrade the vSAN On-Disk Format (ODF) to version 13.

Correct Answer: C, D, F
Section:
Explanation:
https://blogs.vmware.com/virtualblocks/2020/09/21/shared-witness-for-2-node-vsan-deployments/

QUESTION 20
An administrator has an absent capacity disk.
Which action, if any, should the administrator take to resolve the problem?

A. Wait, and vSAN will rebuild it.
B. Replace the faulty disk.
C. Replace the faulty host.
D. Verify the host is not isolated.

Correct Answer: B
Section:
Explanation:
The best action to take to resolve the problem is to replace the faulty disk, as stated in the VMware official guide: 'Hosts can include a maximum of five disk groups [1], each of which must have one flash cache device and one or more capacity devices [1]. In vSAN, each host can have a maximum of seven capacity devices, excluding the flash cache device [1]. The flash cache device is used to accelerate read and write operations [1], while the capacity devices provide the raw storage capacity for the vSAN cluster.'
https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan-monitoring.doc/GUID-4E3390C1-6C50-49E5-AEB6-C9BC037979A1.html

QUESTION 21
A customer is planning to migrate their physical Microsoft SQL Server clustered workloads to vSAN enabled vSphere clusters.
The following requirements must be met:
* Each MSSQL cluster is made up of 3 nodes
* Highest possible availability against node failures
* Some of the vSAN clusters will only consume storage
What should the architect recommend?

A. vSAN iSCSI Target Service
B. Stretched vSAN Cluster
C. vSAN Direct
D. vSAN File Services

Correct Answer: A
Section:
Explanation:
vSAN 6.7 expands the functionality of the vSAN iSCSI Target service to provide the SCSI-3 persistent reservations support for shared disks for windows failover cluster if using the SQL Server FCI, high availability mode is a requirement. The vSAN iSCSI Target service at the vSAN cluster level should be enabled for this purpose. VSAN streched cluster may be used to increase the data availability across data centres.
https://blogs.vmware.com/virtualblocks/2019/03/26/considerations-for-running-microsoft-sql-server-workloads-on-vmware-vsan/

QUESTION 22
A company has engaged a consultant to upgrade an existing vSAN cluster to vSAN 7.0 U1.
During the discovery phase, the consultant found the following information about the existing environment:
* The VMware vCenter Server has recently been upgraded from VMware vSphere 6.7 U3 to version 7.0 U1.
* The vSAN Cluster was recently expanded with identical hardware specification, but from a different hardware vendor.
* The hardware for each vSAN node is listed on the vSAN Compatibility Guide (VCG) for vSAN 7.
* The vSAN Cluster has the following configuration:
- vSAN version: 6.6.1
- Number of vSAN nodes: 10
- Encryption: enabled
- Deduplication and Compression: enabled
- vSAN Capacity Utilization: 60%
* Each vSAN node has the following configuration:
- VMware vSphere ESXi version: 6.5 Update 3
- CPU: 2 processors, 20 cores
- RAM: 768GB RAM.
- Disk: 2 Cache SSDs and 6 Capacity SSDs
- Network: 4 x 10GbE
Which three recommendations should the consultant make to ensure all data remains protected in the event of a vSAN failure? (Choose three.)

A. The Full data migration maintenance mode option must be chosen to protect the data during the upgrade.
B. The Ensure accessibility, migration maintenance mode option must be chosen to protect the data during the upgrade.
C. The upgrade process should be completed using host upgrade baselines in VMware vSphere Lifecycle Manager (vLCM).
D. The vSAN nodes should be upgraded to vSphere ESXi 7.0 U1.
E. The upgrade process should be completed using images in VMware vSphere Lifecycle Manager (vLCM).
F. The vSAN nodes should be upgraded to vSphere ESXi 6.7 U3.

Correct Answer: A, C, D

Section:
Explanation:
https://blogs.vmware.com/virtualblocks/2018/10/29/a-closer-look-at-emm/

QUESTION 23
data centers, the customer relayed the following information:
* Highest possible mitigation during a host failure in terms of capacity.
* A constraint in this year's IT budget.
What should the architect recommend?

A. Enable operations reserve. A minimum cluster of 3 vSAN nodes.
B. Enable host build reserve. A minimum cluster of 4 vSAN nodes.
C. Enable performance services. A minimum cluster of 6 vSAN nodes.
D. Enable IOInsight Metrics. A minimum cluster of 2 vSAN ROBO nodes.

Correct Answer: B
Section:
Explanation:
Performance services and IOinsight Metrics used for performance analysis. Operation reserve for internal VSAN operations. https://blogs.vmware.com/virtualblocks/2020/09/24/effective-capacity-management-with-vsan-7-update-1/

QUESTION 24
An administrator has been tasked to reboot a node in an encrypted vSAN cluster. The vSAN disk groups on that node become locked after rebooting the node.
Which step should be performed to exit the locked state?

A. Manually replace the Host Encryption Key (HEK) of each affected host.
B. Restore the communication with the KMS server, and re-establish the trust relationship.
C. Replace the caching device in each affected disk group.
D. Run /etc/init.d/vsanvpd restart to rescan the VASA providers.

Correct Answer: B
Section:
Explanation:
https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan-monitoring.doc/GUID-084B3888-499F-4CD0-8954-A149560B1534.html

QUESTION 25
A customer is planning to deploy a vSAN cluster to host their in-house distributed ERP system. The hardware specifications for their server nodes include:
* 2 x Intel Xeon CPU E5-2697 v3 @ 2.60GHz
* 1TB memory
Which boot device is supported for the vSAN ESXi nodes for this customer?

A. A 16GB single-level cell (SLC) SATADOM device must be used.
B. A 4GB USB or SD device must be used.
C. A 16GB multiple-level cell (MLC) SATADOM device must be used.
D. ESXi Hosts must boot from a PMEM device.

Correct Answer: A
Section:

Explanation:
If the memory of the ESXi host has 512 GB of memory or less, you can boot the host from a USB, SD, or SATADOM device. If the memory of the ESXi host has more than 512 GB, consider the following guidelines. * You can boot the host from a SATADOM or disk device with a size of at least 16 GB. When you use a SATADOM device, use a single-level cell (SLC) device. https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan-planning.doc/GUID-B09CE19D-A3F6-408C-AE69-35F65CBE66E1.html

QUESTION 26
A company hosts a vSAN 7 stretched cluster for all development workloads. The original sizing of a maximum of 250 concurrent workloads in the vSAN cluster is no longer sufficient and needs to increase to at least 500 concurrent workloads within the next six months.
To meet this demand, the original 8-node (4-4-1) cluster has recently been expanded to 16 nodes (8-8-1).
Which three additional steps should the administrator take to support the current growth plans while minimizing the amount of resources required at the witness site? (Choose three.)

A. Add the new vSAN witness appliance to vCenter Server.
B. Deploy a new large vSAN witness appliance at the witness site.
C. Configure the vSAN stretched cluster to use the new vSAN witness.
D. Deploy a new extra large vSAN witness appliance at the witness site.
E. Upgrade the vSAN stretched cluster to vSAN 7.0 U1.
F. Configure the new vSAN witness as a shared witness appliance.

Correct Answer: A, B, C
Section:
Explanation:
https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan-planning.doc/GUID-05C1737A-5FBA-4AEE-BDB8-3BF5DE569E0A.html

QUESTION 27
Upon investigating a workload performance issue, a vSAN administrator observed a high backend IOPs on a vSAN cluster.
Which two causes explain this behavior? (Choose two.)

A. The cluster DRS threshold has been set to Aggressive.
B. There is a vSAN node failure.
C. The vSAN Resync throttling is enabled.
D. The object repair timer value has been increased.
E. The vSAN policy protection level has changed from FTT=0 to FTT=1.

Correct Answer: B, E
Section:

QUESTION 28
An administrator wants to check the performance metrics for the workloads and their virtual disks that are running on a vSAN cluster, but no statistical charts are displayed in the vSphere client.
Why is this behavior being seen?

A. vSAN network diagnostic mode is not enabled.
B. vSAN proactive tests haven't been run yet.
C. vSAN performance service is turned off.
D. vSAN performance verbose mode is not enabled.

Correct Answer: C
Section:

Explanation:
: Some tools allow for measuring latency peaks. This unfortunately isn't ideal, as it can unfairly represent statistical outliers, which may very well occur when there is little to no I/O activity. The best way to understand the actual behavior of VM and application latencies is to observe in time based performance graphs. Depending on the level of detail, you may need to measure at the individual VMDK level. Become familiar with these graphs to determine what is normal, and what is not for that given application. This is where you can use built-in functionality of vCenter and the vSAN performance service metrics to gather this information.
https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan-monitoring.doc/GUID-EF27701E-7BAC-4E76-9D2F-E1C58CAAB06D.html

QUESTION 29
During a maintenance action on a vSAN node, a vSAN administrator noticed that the default repair delay time is about to be reached.
Which two commands must be run to extend the time? (Choose two.)

A. /etc/init.d/vsanmgmtd restart
B. esxcli system settings advanced set -o /VSAN/ClomRepairDelay -i 50
C. esxcli system settings advanced set -o /VSAN/ClomRepairDelay -i 80
D. /etc/init.d/clomd restart
E. /etc/init.d/vsanobserver restart

Correct Answer: C, D
Section:

QUESTION 30
An administrator wants to deploy a desktop and application virtualization solution on top of vSAN.
Which VMware product should the administrator install?

A. VMware Dynamic Environment Manager
B. VMware Horizon Apps
C. VMware Workspace One Access
D. VMware Horizon

Correct Answer: D
Section:

QUESTION 31
An administrator has been tasked with enabling encryption for existing virtual machines on a vSAN cluster.
Which three prerequisites must be satisfied before completing the task? (Choose three.)

A. Create an encryption storage policy
B. Enable Data-In-Transit encryption first
C. Enable that the virtual machines are powered on
D. Verify if a role with privilege ''Cryptographic operations.Encrypt new'' is assigned
E. Verify if a role with privilege ''Cryptographic operations.Migrate'' is assigned
F. Establish a trusted connection with the KMS

Correct Answer: A, D, F
Section:
Explanation:
Because Before you can create encrypted virtual machines, you must create an encryption storage policy. You create the storage policy once, and assign it each time you encrypt a virtual machine or virtual disk.
https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.security.doc/GUID-7DE1ED8F-880B-421E-B27B-5AAA58454AFA.html

QUESTION 32
Upon checking the latency goal under vSAN performance diagnostics, the vSAN Administrator sees this message displayed:
The increase in latency in the vSAN stack might be beyond expected limits.
Which two root causes can be identified to help remediate the issue? (Choose two.)

A. vSAN VMKemel portgroup is configured with the ''Route based on IP hash'' teaming policy
B. vSAN encryption is enabled
C. Large packet losses and retransmissions on the network layer
D. Incorrect sizing of the disk groups capacity disks
E. One or more disk groups are congested

Correct Answer: C, E
Section:

QUESTION 33
An architect is designing for a production vSAN cluster, and the customer introduced these requirements related to File Services: A minimum of 12 files shares. 30TB NFS capacity to mount workload VMs.
What should be the architect's recommendations?

A. Point out the risks regarding putting the hosts in maintenance mode in terms of FSVM.
B. Confirm on all of the requirements and move forward with the physical design.
C. Raise concerns regarding support when running VMs on an NFS share as risk.
D. Highlight the required number of nodes required for the vSAN cluster as a constraint.

Correct Answer: D
Section:

QUESTION 34
An administrator has received an alert indicating that a single capacity device is close to failing within the production vSAN Cluster. The administrator must now complete preemptive maintenance on the vSAN Cluster without impacting the availability of workloads or vSAN File Services.
The following information is known about the vSAN Cluster:
* vSAN 7.x Cluster
* vSAN node count: 8
* De-Duplication and Compression: Enabled.
* Encryption: Disabled
* Current Utilization: 45%
* Disk Groups: 2
* Devices per node: 2 x 400 GB SSD, 6 x 1.8 TB SSD
Which three steps should the administrator take to successfully complete the task? (Choose three.)

A. Remove the affected Disk Group from the vSAN Cluster, and choose Full Data Migration.
B. Replace the failed disk with a storage device that is identical in class and capacity.
C. Remove the affected Disk Group from the vSAN Cluster, and choose No Data Migration.
D. Replace the failed disk with a storage device that is identical in class but smaller in capacity.
E. Put the affected vSAN host into maintenance mode to physically replace the storage device.
F. Remove the affected Disk from the Disk Group, and choose Full Data Migration.

Correct Answer: B, E, F

Section:
Explanation:
If you upgrade the capacity device, verify the following requirements:
- Verify that the cluster contains enough space to migrate the data from the capacity device.
- Place the host in maintenance mode. See Place a Member of Virtual SAN Cluster in Maintenance Mode.
'Select the flash capacity device or magnetic disk, and click Remove selected disk(s) from disk group.'
https://docs.vmware.com/en/VMware-vSphere/6.5/com.vmware.vsphere.virtualsan.doc/GUID-4E3390C1-6C50-49E5-AEB6-C9BC037979A1.html

QUESTION 35
A 30-minute power maintenance window has been approved on Sunday. Due to a delay, the maintenance took 20 minutes longer to finish.
During this time, the vSAN administrator noticed that one of the clusters nodes was affected by a power shortage, as it was connected to an affected power source. The default vSAN storage policy has been applied.
What will be the status of the vSAN objects on the affected host immediately after it is recovered?

A. The cluster will be partitioned and the vSAN host will need to be rejoined.
B. A rebuild of the affected objects will occur.
C. All objects will remain accessible.
D. All objects on the affected host will be lost.

Correct Answer: C
Section:
Explanation:
Default Storage Policy is FTT=1. https://docs.vmware.com/en/VMware-vSphere/6.7/com.vmware.vsphere.virtualsan.doc/GUID-C228168F-6807-4C2A-9D74-E584CAF49A2A.html

QUESTION 36
Due to the success of the recently deployed developer-only private cloud solution, a company has a new requirement to at least double the usable capacity in their all-flash vSAN cluster.
The vSAN cluster is deployed into a co-located datacenter that is owned by a third-party hosting company. The hosting company charges a fixed monthly cost for rack space and power consumption. The service owner has been given a limited budget for additional hardware purchases, but not for on-going co-location costs.
The current vSAN cluster has the following configuration:
* 10 vSAN Nodes with 2 CPUs (20 cores), 512 GB RAM
* 1 Disk Group per vSAN node
- 1 x 400 GB
- 4 x 1.8 TB
* De-duplication and Compression is enabled.
* vSAN Capacity is currently:
- Total: 72 TB
- Usable: ~40 TB (FTT1/RAID1) and ~60 TB (FTT1/RAID5).
As a result of any action taken, the service owner would like to ensure that overall availability of the vSAN cluster is increased.
Which two recommendations meet the requirement to increase capacity while maintaining service availability? (Choose two.)

A. Install an additional 400 GB SSD and 4 x 1.8 TB SSDs per vSAN node.
B. Update the existing Disk Group, and claim the newly installed drives for each node.
C. Create a new Disk Group, and claim the newly installed cache and capacity SSD drives for each node.
D. Install an additional 3 x 1.8 TB SSDs per vSAN node.
E. Replace existing SSDs with an 800 GB SSD and 4 x 3.8 TB SSDs per vSAN node.

Correct Answer: A, C
Section:
Explanation:

Option A meets the requirement by adding additional SSDs to each vSAN node, which will increase the total capacity of the vSAN cluster. By installing the same type of SSDs that are currently being used, this option will also maintain the same level of service availability.
Option C meets the requirement by creating a new disk group and adding the newly installed SSDs to it. By creating a new disk group, it will allow you to use the new SSDs as a separate cache and capacity tier, which will improve the cluster's performance and increase the usable capacity.

QUESTION 37
After a vSAN Witness Appliance network configuration, the vSAN administrator notices that vSAN traffic flows from vmk0 (Management Traffic) rather than vmk1 (vSAN Traffic).
Which step should be taken to resolve this issue?

A. Configure vmk0 with IP address on the same range as that of vmk1.
B. Tag the vmk0 for vSAN traffic.
C. Configure vmk1 with IP address on the different network than that of vmk0.
D. Tag the vmk1 for Witness traffic.

Correct Answer: C
Section:
Explanation:
The vmk1 interface cannot be configured with an IP address on the same range as that of vmk0. This is because Management traffic and vSAN traffic use the default TCP/IP stack. If both vmk0 and vmk1 are configured on the same range, a multihoming condition will occur and vSAN traffic will flow from vmk0, rather than vmk1.

QUESTION 38
A customer has upgraded to vSAN 7, but there is still an existing legacy host which must be removed from the vSAN cluster.
Which three steps must an administrator take to successfully remove this host from the vSAN cluster? (Choose three.)

A. Place the host in maintenance mode with Ensure Accessibility
B. Disconnect from vCenter Server
C. Place the host in maintenance mode with Full Data migration
D. Place the host in maintenance mode with no data migration
E. Remove from vSAN cluster
F. Delete the disk group(s) on the legacy host

Correct Answer: C, E, F
Section:

QUESTION 39
During a vSAN design workshop, an architect collected these customer requirements:
* Leverage vSAN storage policies with Erasure Coding.
* Enable Deduplication and Compression.
* Use the minimum number of hosts in the cluster.
* Maintain full storage policy compliance when two nodes are down.
Which vSAN cluster design meets the customer's requirements?

A. Five nodes All-Flash vSAN cluster
B. Six nodes All-Flash vSAN cluster
C. Six nodes Hybrid vSAN cluster
D. Five nodes Hybrid vSAN cluster

Correct Answer: B
Section:
Explanation:
https://blogs.vmware.com/virtualblocks/2018/05/24/vsan-deployment-considerations/

QUESTION 40
An administrator is tasked with setting up Kerberos authentication only for the vSAN File services.
Which version of Kerberos must be selected if the NFS version is v4.1?

A. krb5i
B. krb4
C. krb5
D. krb5p

Correct Answer: C
Section:
Explanation:
Because krb5 for authentication only, or krb5i for authentication and data integrity. https://core.vmware.com/resource/best-practices-running-nfs-vmware-vsphere#sec9459-sub5
https://blogs.vmware.com/virtualblocks/2020/09/17/vsan-7-u1-file-services/

QUESTION 41
An administrator wants to enable encryption on an existing vSAN cluster that already contains virtual machines.
Which additional step should the administrator take to ensure no data is lost during the encryption process?

A. Select 'Erase disks before use' check box when enabling encryption on a vSAN cluster.
B. Make vCenter Server trust the KMS, either by trusting the KMS or by uploading a KMS certificate.
C. Ensure that the vSAN Encryption is enabled by default on the existing cluster to encrypt old and new data.
D. Disable vSphere Distributed Resources Schedule (DRS) on the vSAN cluster.

Correct Answer: B
Section:
Explanation:
You must have configured a standard key provider and established a trusted connection between vCenter Server and the KMS.

QUESTION 42
An organization has two vSAN clusters managed by the same vCenter Server, each providing 100TB of storage. The first cluster runs at 75% of its storage capacity, and the second cluster runs at 50% of its storage capacity.
The company also has the following:
* An iSCSI array of 300TB. which runs at 76% of its capacity
* A NAS system of 200TB, which runs at 10% of its capacity
* A Fiber channel (FC) array of 300TB, which runs at 80% of its capacity
The administrator is asked to add an additional 25TB of storage to the first cluster. The administrator is also made aware that there is no budget to purchase new hardware and that the vSAN Storage Policy Based Management must be kept in place.
Which storage option will work for this use case?

A. Create an HCI Mesh using the first cluster's datastore.
B. Obtain additional free capacity from the existing NAS storage.
C. Obtain additional free capacity from the existing FC storage.
D. Create an HCI Mesh using the second cluster's datastore.

Correct Answer: D
Section:
Explanation:
https://blogs.vmware.com/virtualblocks/2020/09/16/introducing-vmware-vsan-hci-mesh/

QUESTION 43
Which statement accurately describes the result when proper VM Storage Policy Affinity Rules on a stretched vSAN cluster are set?

A. When a site is disconnected, the VM will lose access to its VMDK.
B. When a site is disconnected, the VM will continue to have access to its VMDK.
C. Bandwidth is unnecessarily sent across the inter-site link.
D. Proper policies result in higher inter-site bandwidth utilization.

Correct Answer: B
Section:
Explanation:
Setting proper VM/Host Group Rules and VM Storage Policy Affinity Rules are beneficial for several reasons Bandwidth is not unnecessarily sent across the inter-site link Lower inter-site bandwidth utilization In the situation where the alternate site is disconnected, the VM will continue to have access to its vmdk. from https://core.vmware.com/resource/vsan-stretched-cluster-guide#sec7341-sub5

QUESTION 44
A cache disk failure marked a vSAN disk group as failed, and the data is being rebuilt on other disk groups.
Which action should the vSAN administrator take to reduce the negative impact on the VMs?

A. Enabling Resync Throttling
B. Enabling Maintenance mode with no data evacuation
C. Enabling automatic rebalance
D. Setting the vSAN policy's IOPS limit for object value to 0 (unlimited)

Correct Answer: A
Section:
Explanation:
https://docs.vmware.com/es/VMware-vSphere/6.5/com.vmware.vsphere.virtualsan.doc/GUID-8D81FCF6-AC9A-4C2C-A8AC-DE50B9965054.html

QUESTION 45
An architect is tasked to design a VMware Horizon Solution with vSAN. The architect needs to use a solution to host the user's profile shares in a highly available manner, and it must be guest OS independent.
Which solution will match these requirements?

A. Cluster out of the box
B. Cluster in a box
C. NFS on vSAN
D. iSCSI on vSAN

Correct Answer: C
Section:
Explanation:
Os independent is the requirements and High Availability. So vSAN 7 enable NFS and SMB on s SPBM cluster in wich Windows, Linux and MAC could have user profile with business continuity. Ref:
https://core.vmware.com/blog/redirecting-user-profiles-and-data-using-fslogix-and-vsan-file-services

QUESTION 46
During a design workshop for a stretched vSAN cluster, the requirement that some of the VMs be configured with no-mirror between sites was discussed.
Which three recommendations should the architect provide to address an event of a network partition between two sites? (Choose three.)

A. Host isolation response must exclude the VMs required
B. The default gateway must be used as the only isolation address
C. One of isolation addresses should reside in the site 1 data center
D. VMware vSphere DRS rules to force the VMs to run where the data resides
E. One isolation address reachable only from the witness appliance in both sites
F. One of isolation addresses should reside in the site 2 data center

Correct Answer: C, D, F
Section:
Explanation:
Network Isolation Response and Multiple Isolation Response Addresses In a Virtual SAN Stretched Cluster, one of the isolation addresses should reside in the site 1 datacenter and the other should reside in the site 2 datacenter. This would enable vSphere HA to validate complete network isolation in the case of a connection failure between sites.
https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/techpaper/VMware-Virtual-SAN-6.1-Stretched-Cluster-Guide.pdf/subassets/page38.pdf

QUESTION 47
cluster for a customer who is planning to use vRealize Automation to provision 600 virtual machines into that cluster, with expected growth up to 1,000 VM. Each VM has a 40GB thick-provisioned disk.
Which flash disk size is required for the cache tier per ESXi node to meet all requirements?

A. 400GB
B. 700GB
C. 600GB
D. 800GB

Correct Answer: C
Section:
Explanation:
https://kb.vmware.com/s/article/89485

QUESTION 48
An administrator is tasked with sharing storage from one vSAN cluster to another vSAN cluster. SPBM management must be preserved end-to-end, and the policy must be applied by the source vSAN cluster which is storing the dat
a. Both vSAN clusters are managed by the same vCenter server.
What should the administrator configure?

A. NFS volumes on vSAN
B. iSCSI targets on vSAN
C. HCI Mesh on vSAN
D. vVOLs on vSAN

Correct Answer: C
Section:
Explanation:
The administrator should configure HCI Mesh on vSAN in order to share storage from one vSAN cluster to another vSAN cluster while preserving SPBM management end-to-end and applying the policy by the source vSAN

cluster. According to the VMware documentation, 'HCI Mesh enables vSAN clusters to share storage capacity with each other. You can create a stretched cluster with a maximum of four sites, or you can create a stretched cluster with multiple sites, with a maximum of 32 sites in a single vSAN domain. HCI Mesh supports the vSAN Stretched Cluster features, including Distributed RAID, Erasure Coding, and SPBM policy enforcement.'