Vendor:VMware

Exam Code:2V0-621

Exam Name:VMware Certified Professional 6 – Data Center Virtualization

Version: Demo

QUESTION 1

Which two statements are true regarding VMFS3 volumes in ESXi 6.x? (Choose two.)

A. Creation of VMFS3 volumes is unsupported.

B. Upgrading VMFS3 volumes to VMFS5 is supported.

C. Existing VMFS3 volumes are unsupported.

D. Upgrading VMFS3 volumes to VMFS5 is unsupported.

Correct Answer: AB

Understanding VMFS Datastores

To store virtual disks, ESXi uses datastores, which are logical containers that hide specifics of physical storage from virtual machines and provide a uniform model for storing virtual machine files. Datastores that you deploy on block storage devices use the vSphere VMFS format, a special high-performance file system format that is optimized for storing virtual machines.

Several versions of the VMFS file system have been released since its introduction. The following table shows host-to-VMFS version relationships.

Table 16-1. Host access to VMFS version

VMFS	ESX/ESXi 3.x host	ESX/ESXi 4.x host	ESXi 5.x host	ESXi 6.0 host
VMFS2	RO	RO	N	N
VMFS3	RW	RW	RW	RW Note You can continue to use existing VMFS3 datastores, but you cannot create new ones. If you have existing VMFS3 datastores, upgrade them to VMFS5.
VMFS5	N	N	RW	RW

- RW: Complete read and write support. You can create and power on virtual machines.
- RO: Read only support. You cannot create or power on virtual machines.
- N: No access. ESXi 5.x and later hosts do not support VMFS2. If your datastore was formatted with VMFS2, first upgrade the datastore to VMFS3 using legacy hosts.

Use the vSphere Web Client to set up a VMFS datastore in advance on a block-based storage device that your ESXi host discovers. A VMFS datastore can be extended to span several physical storage extents, including SAN LUNs and local storage. This feature allows you to pool storage and gives you flexibility in creating the datastore necessary for your virtual machines.

Note Pooling ATS-capable hardware creates a spanned VMFS datastore that can use ATS-only locking mechanism. If any device is not ATS-capable, the datastore cannot be ATS-only, but uses ATS+SCSI locking.

You can increase the capacity of a datastore while virtual machines are running on the datastore. This ability lets you add new space to your VMFS datastores as your virtual machine requires it. VMFS is designed for concurrent access from multiple physical machines and enforces the appropriate access controls on virtual machine files.

Reference: https://pubs.vmware.com/vsphere-60/topic/com.vmware.ICbase/PDF/vsphere-esxi-vcenterserver-60-storage-guide.pdf

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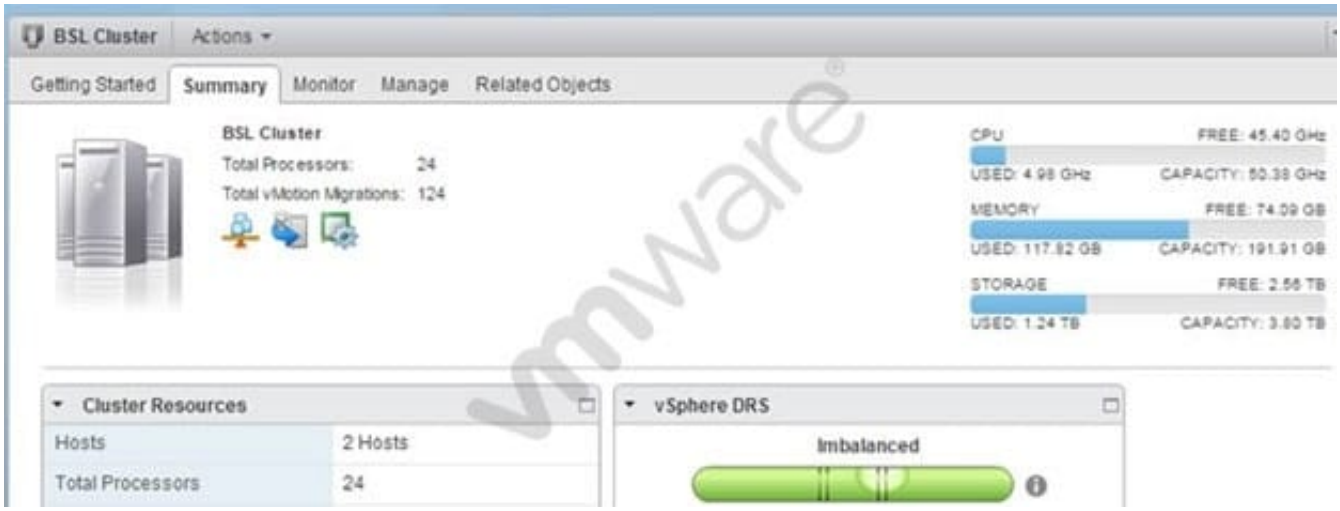
QUESTION 2

Refer to the Exhibit.



An administrator is reviewing a vSphere Distributed Resource Scheduler (DRS) enabled Cluster and observes unexpected behavior as shown in the Exhibit.

What are three potential causes of the cluster imbalance? (Choose three.)

A. A local device is mounted to one or more virtual machines.

B. DRS rules prevent virtual machines from being moved.

C. vMotion is not configured and enabled.

D. There are insufficient cluster resources to perform the migration.

E. DRS has been configured for a conservative migration threshold.

Correct Answer: ABC

A-) A device is mounted to one or more virtual machines preventing DRS from moving the virtual machine in order to balance the load.

B-) The migration threshold is too high.

A higher threshold makes the cluster a more likely candidate for load imbalance.

VM/VM or VM/Host DRS rules prevent virtual machines from being moved.

C-) It would be more detrimental for the virtual machine\\'s performance to move it than for it to run where it is currently located. This may occur when loads are unstable or the migration cost is high compared to the benefit gained from moving the virtual machine.

Observe that vMotion is not enabled or set up for the hosts in the cluster, DRS does not move any virtual machines from a host. ... from this host would violate a VM/VM DRSrule or VM/Host DRS rule. https://pubs.vmware.com/

QUESTION 3

An administrator wants to configure an ESXi 6.x host to use Active Directory (AD) to manage users and groups. The AD domain group ESX Admins is planned for administrative access to the host.

Which two conditions should be considered when planning this configuration? (Choose two.)

A. If administrative access for ESX Admins is not required, this setting can be altered.

B. The users in ESX Admins are not restricted by Lockdown Mode.

C. An ESXi host provisioned with Auto Deploy cannot store AD credentials.

D. The users in ESX Admins are granted administrative privileges in vCenter Server.

Correct Answer: AC

Configure a Host to Use Active Directory You can configure a host to use a directory service such as Active Directory to manage users and groups. When you add an ESXi host to Active Directory the DOMAIN group ESX Admins is assigned full administrative access to the host if it exists. If you do not want to make full administrative access available, see VMware Knowledge Base article 1025569 for a workaround. If a host is provisioned with Auto Deploy, Active Directory credentials cannot be stored on the hosts. You can use the vSphere Authentication Proxy to join the host to an Active Directory domain. Because a trust chain exists between the vSphere Authentication Proxy and the host, the Authentication Proxy can join the host to the Active Directory domain. See Using vSphere Authentication Proxy. Reference: https://pubs.vmware.com/vsphere-60/index.jsp?topic=%2Fcom.vmware.vsphere.security.doc%2FGUID63D22519-38CC-4A9F-AE85-97A53CB0948A.html

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QUESTION 4

An administrator is upgrading an ESXi 5.5 host to ESXi 6.x and gets the following error:

MEMORY_SIZE

What does this indicate?

A. Insufficient memory on the ESXi host to complete the upgrade.

B. Insufficient memory for Auto Deploy to complete the upgrade.

C. Insufficient memory in vCenter Server to complete the upgrade.

D. Insufficient memory for Update Manager to complete the upgrade.

Correct Answer: A

A-) ESXi 6.0 requires the NX/XD bit to be enabled for the CPU in the BIOS. ESXi requires a minimum of 4GB of physical RAM. It is recommended to provide at least 8 GB of RAM to run virtual machines in typical production environments. To support 64-bit virtual machines, support for hardware virtualization (Intel VT-x or AMD RVI) must be enabled on x64 CPUs. http://pubs.vmware.com/vsphere60/index.jsp?topic=%2Fcom.vmware.vsphere.upgrade.doc%2FGUIDDEB8086A-306B-4239-BF76-E354679202FC.html

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QUESTION 5

A failed upgrade from vCenter Server version 5.x to version 6.0 produces the following error:

[00800 error \\'Default\\'] Database version id \\'600\\' is incompatible with this release of VirtualCenter.

What is the cause of the upgrade failure?

A. There was a database schema upgrade failure during the installation.

B. The VMWAREVCMSDS service was upgraded before the vCenter Server service.

C. The VMware Directory Service database failed during the installation.

D. There was an incompatible ODBC driver version for the database.

Correct Answer: A

Explanation: Attempts to upgrade the VMware vCenter Server from 5.x to 6.0 might fail when validating the database Upgrading VMware vCenter Server with an Oracle Database from 5.x to 6.0 might fail. This error occurs when you install a vCenter Server against an external Microsoft SQL database. You need to create the database schema manually by referencing to the information in DB_and_schema_creation_scripts_mssql.txt in the DB scripts folder. An error message similar to the following is displayed: The user associated with the DSN has insufficient privileges. This issue is resolved in this release.VMware vCenter Server 6.0 Update 1 check release notes whitepaper on vmware.com Upgrading from vSphere 5.x to vSphere 6.0 Best Practices (2130664) https://kb.vmware.com/selfservice/search.do?cmd=displayKCanddocType=kcanddocTypeID=DT_KB_1_1andexternalId=2130664

QUESTION 6

What are three recommended prerequisites before upgrading virtual machine hardware? (Choose three.)

A. Create a backup or snapshot of the virtual machine.

B. Upgrade VMware Tools to the latest version.

C. Verify that the virtual machine is stored on VMFS3, VMFS5, or NFS datastores.

D. Detach all CD-ROM/ISO images from the virtual machines.

E. Set the Advanced Parameter virtualHW.version = 11

Correct Answer: ABC

Explanation: Before you upgrade the virtual hardware:

1. Create a backup or snapshot of the virtual machine. For more information, see:

1.

Take a Snapshot in the vSphere Web Client section in the vSphere 5.1 Virtual Machine Administration guide.

2.

Take a Snapshot in the vSphere Client section in the vSphere 5.1 Virtual Machine Administration guide.

2.

Upgrade VMware Tools. On Microsoft Windows virtual machines, if you upgrade the virtual hardware before you upgrade VMware Tools, the virtual machine might lose its network settings.

3.

Verify that all .vmdk files are available to the ESXi/ESX hosts on a VMFS 3, VMFS 5, or NFS datastore.

4.

Verify that the virtual machines are stored on VMFS 3, VMFS 5 or NFS datastores.

5.

Determine the version of the virtual hardware by selecting the virtual machine from the vSphere Client or vSphere Web Client and clicking the Summary tab. The VM Version label in the Compatibility field displays the virtual hardware version

Reference: https://kb.vmware.com/selfservice/microsites/search.do?language=en_USandcmd=displayKCandexternalId=1010675

QUESTION 7

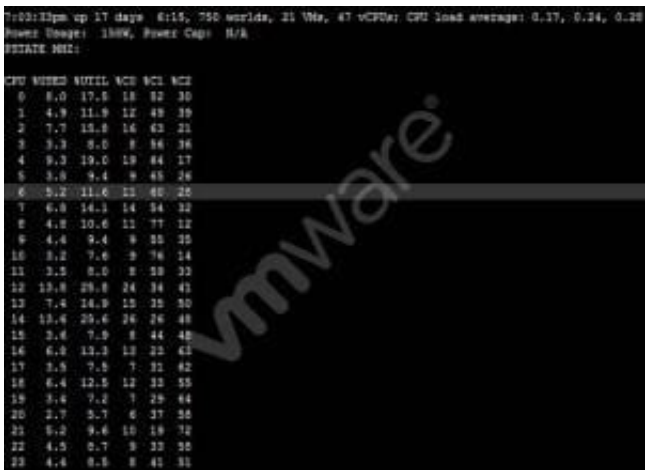
Refer to the Exhibit.

```
7:03:33pm up 17 days  6:15, 750 worlds, 21 VMs, 47 vCPUs; CPU load average: 0.17, 0.24, 0.28
Power Usage:  158W, Power Cap:  N/A
PSTATE MHZ:

CPU %USED %UTIL %C0 %C1 %C2
  0   8.0  17.5  18  52  30
  1   4.9  11.9  12  49  39
  2   7.7  15.8  16  63  21
  3   3.3   8.0   8  56  36
  4   9.3  19.0  19  64  17
  5   3.8   9.4   9  65  26
  6   5.2  11.6  11  60  28
  7   6.8  14.1  14  54  32
  8   4.8  10.6  11  77  12
  9   4.4   9.4   9  55  35
 10   3.2   7.6   9  76  14
 11   3.5   8.0   8  59  33
 12  13.8  25.8  24  34  41
 13   7.4  14.9  15  35  50
 14  13.6  25.6  26  26  48
 15   3.6   7.9   8  44  48
 16   6.8  13.3  13  23  63
 17   3.5   7.5   7  31  62
 18   6.4  12.5  12  33  55
 19   3.4   7.2   7  29  64
 20   2.7   5.7   6  37  58
 21   5.2   9.6  10  19  72
 22   4.5   8.7   9  33  58
 23   4.4   8.5   8  41  51
```

An administrator is troubleshooting intermittent poor performance of virtual machines in a vSphere 6.x cluster. Investigating esxtop data shows that the only statistic that stands out is %CSTP as depicted in Exhibit 1:

The administrator proceeds to switch to the Power Management screen and observes the data depicted in Exhibit 2:



Based on the information in the exhibits, which two configurations are probable causes of the poor performance? (Choose two.)

A. The active power policy is set to Low Power.

B. The host has active Sleep States configured in the BIOS.

C. The active power policy is set to High Performance.

D. The host has active Power States configured in the BIOS.

Correct Answer: AB

A and B Analyzing esxtop columns

Refer to this table for relevant columns and descriptions of these values: Column Description CMDS/s This is the total amount of commands per second and includes IOPS (Input/Output Operations Per Second) and other SCSI commands such as SCSI reservations, locks, vendor string requests, unit attention commands etc. being sent to or coming from the device or virtual machine being monitored. In most cases, CMDS/s = IOPS unless there are a lot of metadata operations (such as SCSI reservations) DAVG/cmd This is the average response time in milliseconds per command being sent to the device. KAVG/cmd This is the amount of time the command spends in the VMkernel. GAVG/cmd This is the response time as it is perceived by the guest operating system. This number is calculated with the formula: DAVG + KAVG = GAVG

Link: https://kb.vmware.com/selfservice/microsites/search.do? language=en_USandcmd=displayKCandexternalId=1008205 And, BIOS: https://kb.vmware.com/selfservice/microsites/search.do? language=en_USandcmd=displayKCandexternalId=1018206

QUESTION 8

An administrator created a six node Virtual SAN cluster, created a fault domain, and moved three of the six nodes into that domain.

A node that is a member of the fault domain fails.

What is the expected result?

A. The remaining two fault domain members are treated as failed.

B. The remaining two fault domain members stay protected by the domain.

C. One of the non-member nodes will be automatically added to the fault domain.

D. VMware High Availability will restart virtual machines on remaining nodes in the domain.

Correct Answer: A

Defines the number of host and device failures a virtual machine object can tolerate. For n failures tolerated, n+1 copies of the virtual machine object are created and 2*n+1 hosts contributing storage are required. When provisioning a virtual machine, if you do not choose a storage policy, Virtual SAN assigns this policy as the default virtual machine storage policy. Default value is 1. Maximum value is 3. If fault domains are configured, 2n+1 fault domains with hosts contributing capacity are required. A host, which is not part of any fault domain is considered as its own single host fault domain. Default value is 1. Maximum value is 3. NOTE If you do not want Virtual SAN to protect a single mirror copy of virtual machine objects, you can specify the Number of failures to tolerate=0. However, the host might experience unusual delays when entering maintenance mode. The delay occurs because Virtual SAN has to evacuate the object

from the host for the maintenance operation to complete successfully. Setting the Number of failures to tolerate=0 means that your data is unprotected, and you might lose data when the Virtual SAN cluster encounters a device failure. NOTE When creating a new storage policy, if you do not specify any value for Number of failures to tolerate, by default, Virtual SAN creates a single mirror copy of the virtual machine objects and tolerates only one failure. However, in the event of a multiple component failures your data might be at risk. link: https://pubs.vmware.com/vsphere-60/topic/com.vmware.ICbase/PDF/virtual-san-60-administrationguide.pdf

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QUESTION 9

An administrator connects to an ESXi 6.x host console in order to shutdown the host.

Which option in the Direct Console User Interface would perform this task?

A. Press the F12 key

B. Press the F2 key

C. Press Alt + F1 simultaneously

D. Press Alt + F2 simultaneously

Correct Answer: A

ESXi 4.x/5.x/6.0

1.

From the Direct Console User Interface (DCUI) screen, press F12 to view the shutdown-related options

for the ESXi host.

Press F2 to shut down.

Press F11 to reboot.

2.

From Local or Remote Tech Support Mode, or from an SSH session, run one of these commands:

Run the reboot command to restart the host.

Run the poweroff command to shut down the host.

Reference: https://kb.vmware.com/selfservice/microsites/search.do?language=en_USandcmd=displayKCandexternalId=1013193

QUESTION 10

An administrator is configuring Storage I/O Control. After enabling, the administrator notices high device latency and poor storage performance.

Which two actions would likely reduce latency and improve functionality? (Choose two.)

A. Ensure that each datastore uses shared spindles.

B. Ensure that each datastore has independent spindles.

C. Set the congestion threshold to 15ms.

D. Set the congestion threshold value to 5ms.

Correct Answer: BC

QUESTION 11

Which two groups of settings should be reviewed when attempting to increase the security of virtual machines (VMs)? (Choose two.)

A. Disable hardware devices

B. Disable unexposed features

C. Disable VMtools devices

D. Disable VM Template features

Correct Answer: AB

Securing Virtual Machines The guest operating system that runs in the virtual machine is subject to the same security risks as a physical system. Secure virtual machines as you would secure physical machines. Subtopics General Virtual Machine Protection Configuring Logging Levels for the Guest Operating System Limiting Exposure of Sensitive Data Copied to the Clipboard Disable Unexposed Features Limiting Guest Operating System Writes to Host Memory Removing Unnecessary Hardware Devices Prevent a Virtual Machine User or Process from Disconnecting Devices Prevent a Virtual Machine User or Process from Disconnecting Devices in the vSphere Web Client Reference: https://pubs.vmware.com/vsphere-51/index.jsp#com.vmware.vsphere.security.doc/GUID-CF45F448-20364BE3-8829-4A9335072349.html

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QUESTION 12

An administrator is configuring resource pools for a vSphere 6.x cluster. The cluster has these characteristics:

1.

Five ESXi 6.x hosts

2.

Six cores per host

3.

70 virtual machines with 1 vCPU each

The administrator configures three resource pools and places the virtual machines into the pools, as follows:

1.

Production pool ?High Share value with 40 virtual machines

2.

Infrastructure pool ?Medium Share value with 20 virtual machines

3.

Development pool ?Low Share value with 10 virtual machines

Given this configuration, what is the expected performance for each group of virtual machines during contention?

A. Virtual machines in the Production pool will perform two times as well as those in the Infrastructure pool.

B. Virtual machines in the infrastructure pool will perform four times as well as those in the Development pool.

C. Virtual machines in all resource pools will perform equally.

D. Virtual machines in the Development pool will perform two times as well as those in the Infrastructure pool.

Correct Answer: C