

## VMWARE VCP5-DCV EXAM QUESTIONS & ANSWERS

Number: VCP5-DCV

Passing Score: 800

Time Limit: 120 min

File Version: 34.7



<http://www.gratisexam.com/>



# ExamSheets

DISCOVER CERTIFICATION EXAM ANSWERS

## VMWARE VCP5-DCV EXAM QUESTIONS & ANSWERS

**Exam Name: VMware Certified Professional 5 – Data Center Virtualization (VCP5-DCV) Exam**

### Sections

1. vCenter
2. ESXi
3. Install & Upgrades
4. Security
5. Architecture
6. Standard Switches
7. Distributed Switches
8. Networking
9. Switch Policies
10. Shared Storage
11. VSA
12. Datastores
13. VMs
14. vApps
15. Clones and Templates
16. Clusters
17. Fault Tolerance
18. Resource Pools
19. Migrate VMs
20. Backup VMs
21. Update VMs and ESXi
22. Troubleshoot Hosts
23. Troubleshoot Network
24. Troubleshoot Storage
25. Troubleshoot HA/DRS
26. Troubleshoot vMotion/SvMotion
27. Monitor Hosts, Guests and vCentre

28. Alarms  
29. vCSA

## Exam A

### QUESTION 1

Users are experiencing performance issues when updating their database hosted on a virtual machine. The administrator determines that disk I/O is high across one of the HBAs on the ESXi host containing the virtual machine.

What is the action will most likely correct the issue without significantly impacting other users or datastores?

- A. Manually configure the disk multipathing policy to Round Robin for the datastore
- B. Migrate the virtual machine to an NFS datastore using Storage vMotion
- C. Use Storage vMotion to migrate the virtual machine to a new VMFS5 datastore
- D. Map additional LUNs to the ESXi host and extend the datastores

**Correct Answer: A**

**Section: Troubleshoot Storage**

**Explanation**

**Explanation/Reference:**

### QUESTION 2

An administrator takes a vSphere snapshot of a virtual machine and applies an OS update. After confirming the update the administrator cannot enable Fault Tolerance on the virtual machine and suspects there are snapshots that have not been consolidated.

Which two operations can the administrator perform to verify consolidation is needed? (Choose two.)

- A. Expose the Needs Consolidation column in the virtual machines tab of the host.
- B. Browse the datastore containing the vmdk files and look for files with the "-delta.vmdk" extension.
- C. Expose the Needs Consolidation column in the virtual machine summary tab.
- D. Select and run the vSphere Cluster HealthCheck from the right-click menu of the cluster object.

**Correct Answer: AB**

**Section: Backup VMs**

**Explanation**

**Explanation/Reference:**



Name	State	Status	Provisioned Space	Used Space	Host CPU - MHz	Host Mem - MB	Guest Mem - %
Demo-VM01	Powered On	Normal	44.05 GB	4.05 GB	0	32	0

```
/ # cd /vsan/volumes/local_storage_02/Demo-VM01/
/vsan/volumes/50631802-d791c7d0-30e1-001b21403672/Demo-VM01 # ls -lah
-rw-r--r-- 1 root root 1.9k Jan 23 14:42 Demo-VM01-000001-delta.vmdk
-rw-r--r-- 1 root root 1.6k Jan 23 14:14 Demo-VM01-000001.vmdk
-rw-r--r-- 1 root root 84.0k Jan 23 14:42 Demo-VM01-000001.vswp
-rw-r--r-- 1 root root 321 Jan 23 14:42 Demo-VM01-000001.vmx
-rw-r--r-- 1 root root 4.0G Jan 23 14:20 Demo-VM01-Snapshot1.vswp
-rw-r--r-- 1 root root 4.0G Jan 23 14:44 Demo-VM01-Snapshot1.vmx
-rw-r--r-- 1 root root 40.0G Jan 23 14:14 Demo-VM01-Flat.vmdk
-rw-r--r-- 1 root root 5.5k Jan 23 14:42 Demo-VM01.vvpx
-rw-r--r-- 1 root root 496 Jan 23 14:14 Demo-VM01.vvxlk
-rw-r--r-- 1 root root 448 Jan 23 14:42 Demo-VM01.vvxml
-rw-r--r-- 1 root root 2.7k Jan 23 14:42 Demo-VM01.vmx
-rw-r--r-- 1 root root 364 Jan 23 14:14 Demo-VM01.vmxr
-rw-r--r-- 1 root root 57.9k Jan 23 14:47 vmware.log
-rw-r--r-- 1 root root 50.0k Jan 23 14:20 vpx-Demo-VM01-2431224034-1.vvpx
/vsan/volumes/50631802-d791c7d0-30e1-001b21403672/Demo-VM01 #
```

### QUESTION 3

What are three true statements about quiescing virtual machine snapshots? (Choose three.)

- A. vSphere snapshot quiescing only occurs on Windows guest OSes.
- B. The quiescing operation is automatic with any snapshot.
- C. The quiescing operation varies by guest OS.
- D. Quiescing should occur before array-based snapshots to ensure consistency.
- E. VMware Tools is required for quiescing to be successful.

**Correct Answer:** CDE  
**Section:** Backup VMs  
**Explanation**

**Explanation/Reference:**

#### QUESTION 4

An administrator has recently upgraded their Update Manager infrastructure to vSphere 5.x. Several hosts and virtual machines have not been upgraded yet.

Which vSphere component when upgraded will have the least impact to the existing environment?

- A. Virtual Machine Hardware
- B. ESX Hosts
- C. VMFS datastores
- D. VMware Tools

**Correct Answer:** D  
**Section:** VMs  
**Explanation**

**Explanation/Reference:**

#### QUESTION 5

An ESXi 5.x host displays a warning icon in the vSphere console and its summary page lists a configuration issue "SSH for the host has been enabled."

What are two ways to clear this warning? (Choose two.)

- A. Using the Security Profile pane of the Configuration tab in the vSphere Client
- B. Using the Direct Console User Interface (DCUI)
- C. Using the Advanced Settings pane of the Configuration tab in the vSphere Client
- D. Using the Networking pane of the Configuration tab in the vSphere Client

**Correct Answer:** AB  
**Section:** Security  
**Explanation**

**Explanation/Reference:**

#### QUESTION 6

vCenter reports a connectivity problem with a ESXi 5.x host that is not a member of a cluster.

An administrator attempts to connect directly to the host using the vSphere Client but fails with the message "An unknown connection error occurred."

Virtual machines running on the host appear to be running and report no problem.

What two methods would likely resolve the issue without affecting the virtual machines? (Choose two.)



<http://www.gratisexam.com/>

- A. Enter the service mgmt-vmware restart command from either SSH or local CLI
- B. Select Restart Management Agents in the Direct Console User Interface (DCUI)
- C. Select Reboot Host in the Direct Console User Interface (DCUI)
- D. Enter the services.sh restart command from either SSH or the local CLI

**Correct Answer:** BD

**Section:** Security

**Explanation**

**Explanation/Reference:**

#### QUESTION 7

A user attempts a remote SSH connection to a newly-installed ESXi 5.x host to execute some commands. The SSH connection attempt fails, though the user is able to receive a ICMP ping back from the host. What must the administrator do to enable SSH? (Choose two.)

- A. Enable root logon on the ESXi server.
- B. Open the SSH port on the ESXi firewall.
- C. Start the SSH service on the ESXi server.
- D. Create a local user on the ESXi server.

**Correct Answer:** BC

**Section:** Security

**Explanation**

**Explanation/Reference:**

#### QUESTION 8

An administrator must decommission a datastore. Before unmounting the datastore, which three requirements must be fulfilled? (Choose three.)

- A. No virtual machines reside on the datastore.
- B. The datastore is not used for vSphere HA heartbeat.
- C. No registered virtual machines reside on the datastore.
- D. The datastore must not have any extents.
- E. The datastore must not be part of a datastore cluster.

**Correct Answer:** ABE

**Section:** Datastores

**Explanation**

**Explanation/Reference:**

Explanation:

## Unmount VMFS or NFS Datastores

When you unmount a datastore, it remains intact, but can no longer be seen from the hosts that you specify. The datastore continues to appear on other hosts, where it remains mounted.

Do not perform any configuration operations that might result in I/O to the datastore while the unmount is in progress.

---

**NOTE** vSphere HA heartbeating does not prevent you from unmounting the datastore. If a datastore is used for heartbeating, unmounting it might cause the host to fail and restart any active virtual machine. If the heartbeating check fails, the vSphere Client displays a warning.

---

### Prerequisites

Before unmounting VMFS datastores, make sure that the following prerequisites are met:

- No virtual machines reside on the datastore.
- The datastore is not part of a datastore cluster.
- The datastore is not managed by Storage DRS.
- Storage I/O control is disabled for this datastore.
- The datastore is not used for vSphere HA heartbeating.

### QUESTION 9

An administrator has determined that storage performance to a group of virtual machines is reduced during peak activity.

The virtual machines are located in a VMFS datastore called Production1 on an active-active storage array. The ESXi 5.x host running the virtual machines is configured with an MRU multipathing policy.

Which two actions can be taken to improve the storage performance of these virtual machines? (Choose two.)

- A. Add virtual storage, create a VMFS datastore called Production2 on the new storage, and then migrate some of the virtual machines from Production1 to Production2.
- B. Change the storage multipathing policy to Round Robin.
- C. Add physical storage, create a VMFS datastore called Production2 on the new storage, and then migrate some of the virtual machines from Production1 to Production2.
- D. Change the storage multipathing policy to Fixed with default settings.

**Correct Answer:** BC

**Section:** Shared Storage

**Explanation**

#### Explanation/Reference:

[http://kb.vmware.com/selfservice/microsites/search.do?](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKc&externalId=1011340)

[language=en\\_US&cmd=displayKc&externalId=1011340](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKc&externalId=1011340)

Round Robin (RR): Uses an automatic path selection rotating through all available paths, enabling the distribution of load across the configured paths.

- For Active/Passive storage arrays, only the paths to the active controller will be used in the Round Robin policy.
- For Active/Active storage arrays, all paths will be used in the Round Robin policy.

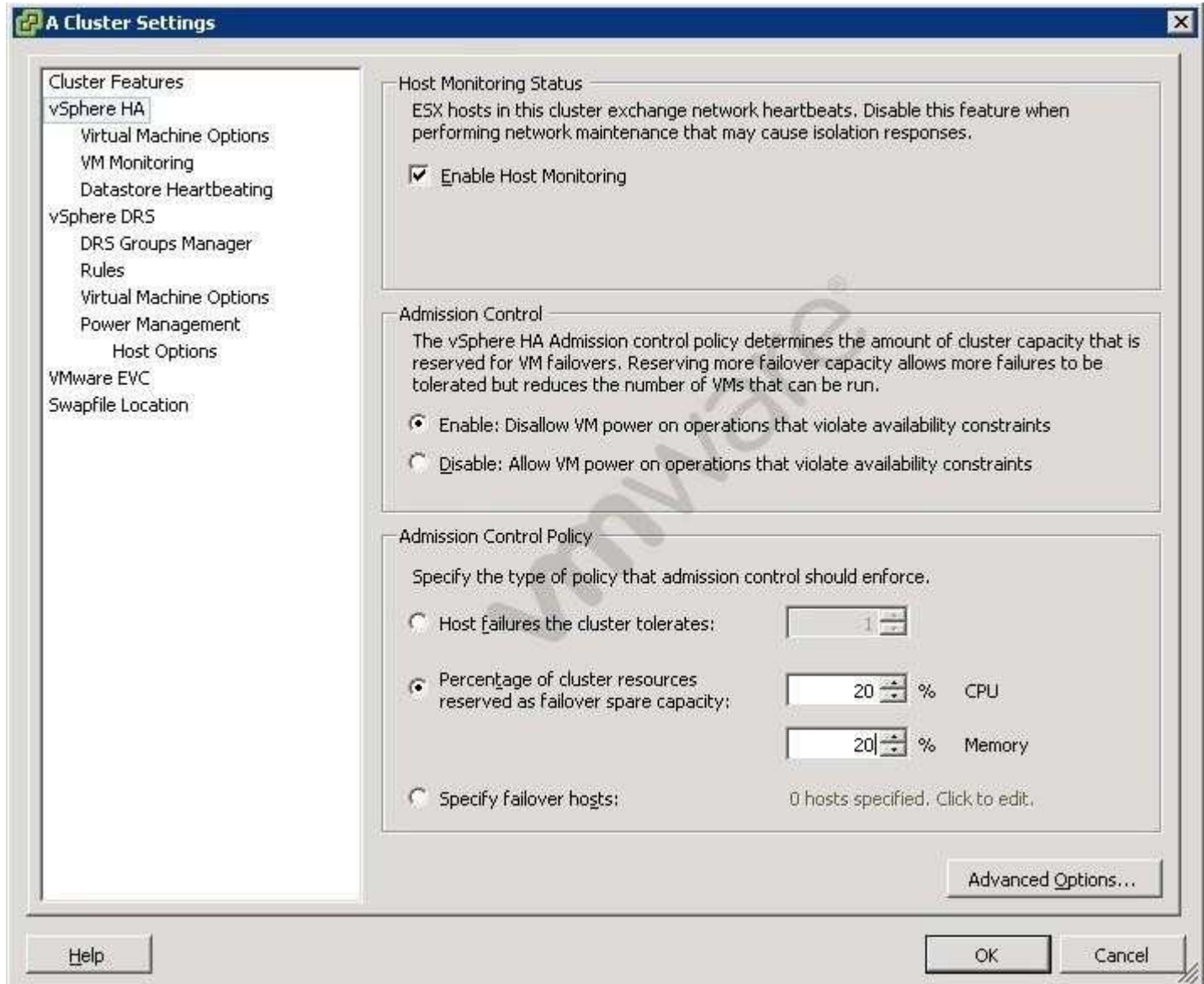
Storage performance refers to how to how efficiently, (typically how quickly), storage operates. By adding a new datastore, and migrate a portion of the virtual machines from Production1 to Production2 is likely to reduce the load on the original datastore. It will improve responsiveness and hence performance.

### QUESTION 10

Click the Exhibit button. An administrator has a DRS/HA cluster with five ESXi 5.x hosts.

When the administrator tries to start a new Web server virtual machine, an error is displayed saying insufficient resources exist for HA .

Based on the HA configuration in the exhibit, which two changes can resolve the issue? (Choose two.)



- A. Shut down one or more virtual machines on the cluster.
- B. Set VM Restart Priority to Disabled for the Web server.
- C. Set Host Isolation response to Shut down.
- D. Suspend one or more virtual machines in the cluster.

**Correct Answer:** AD

**Section:** Troubleshoot HA/DRS

**Explanation**

**Explanation/Reference:**

### QUESTION 11

An administrator is configuring Storage DRS in their environment. The Datastore cluster is composed of 4 VMFS3 volumes and 9 VMFS5 volumes.

Storage DRS has been enabled, but is showing as disabled on several virtual machine disks in the datastore cluster.

Which two conditions would cause this error to occur? (Choose two.)

- A. The virtual machine is stored on a VMFS 3 volume.
- B. One or more virtual machines have Persistent disks.
- C. The virtual machine is stored on a NFS datastore.
- D. The virtual machine is stored on a datastore with a 2mb block size.

**Correct Answer:** AB

**Section:** Troubleshoot HA/DRS

**Explanation**

**Explanation/Reference:**

I couldn't verify these answers.

<http://blogs.vmware.com/vsphere/2011/07/vsphere-50-storage-features-part-5-storage-drs-initial-placement.html> states that you can place VMFS 3 and 5 in the same datastore cluster, but it is not recommended. So A might be correct. The key word is **might**. Nowhere does vSphere state that mixed VMFS versions will cause storage DRS issues.

B is not correct. Persistent mode disks are actually a requirement for Storage vMotion. So the fact the VMs have persistent disks is great.

[http://pubs.vmware.com/vsphere-50/index.jsp?topic=%2Fcom.vmware.vsphere.vcenterhost.doc\\_50%2FGUID-A16BA123-403C-4D13-A581-DC4062E11165.html&resultof=%22%73%74%6f%72%61%67%65%22%20%22%73%74%6f%72%61%67%22%20%22%76%6d%6f%74%69%6f%6e%22%20](http://pubs.vmware.com/vsphere-50/index.jsp?topic=%2Fcom.vmware.vsphere.vcenterhost.doc_50%2FGUID-A16BA123-403C-4D13-A581-DC4062E11165.html&resultof=%22%73%74%6f%72%61%67%65%22%20%22%73%74%6f%72%61%67%22%20%22%76%6d%6f%74%69%6f%6e%22%20)

The above blog also states that VMFS and NFS datastores cannot be mixed in the same datastore cluster.

Which is confirmed here:

<http://pubs.vmware.com/vsphere-51/index.jsp?topic=%2Fcom.vmware.vsphere.resmgmt.doc%2FGUID-34A10B42-C79E-491C-A5AA-99E3B5FA2278.html>

In other words, you cannot create a datastore cluster with mixed VMFS and NFS datastores. vSphere won't let you. Since the question specifically states that there are only VMFS datastores in the cluster, it would be impossible for a VM to be on a NFS datastore. C cannot be correct.

The fact that the datastore has a 2mb block size is meaningless. neither storage vMotion, storage DRS, or datastore clustering have any block size requirements.

You might be able to infer that this is VMFS 3, but then again, if the datastore had been upgraded to 5, the old block size is retained. So the datastore could be either VMFS 3 or 5. D is not correct.

### QUESTION 12

Which three requirements must be met in order to use Storage I/O Control? (Choose three.)

- A. The datastore must contain multiple VMFS extents.
- B. The datastore must contain a single NFS volume.
- C. The datastore must not include virtual machines with snapshots.
- D. The datastore must be managed by a single vCenter Server.
- E. Array-based automated storage tiering must be explicitly certified.



**Correct Answer:** BDE

**Section:** Datastores

**Explanation**

**Explanation/Reference:**

Explanation:

Extents are only a single extent ?not multiples. Also, because NFS is not VMFS it does not use extents. You grow the NFS from the actual NAS appliance itself with extents.

## Storage I/O Control Requirements

Storage I/O Control has several requirements and limitations.

- Datastores that are Storage I/O Control-enabled must be managed by a single vCenter Server system.
- Storage I/O Control is supported on Fibre Channel-connected, iSCSI-connected, and NFS-connected storage. Raw Device Mapping (RDM) is not supported.
- Storage I/O Control does not support datastores with multiple extents.
- Before using Storage I/O Control on datastores that are backed by arrays with automated storage tiering capabilities, check the *VMware Storage/SAN Compatibility Guide* to verify whether your automated tiered storage array has been certified to be compatible with Storage I/O Control.

### QUESTION 13

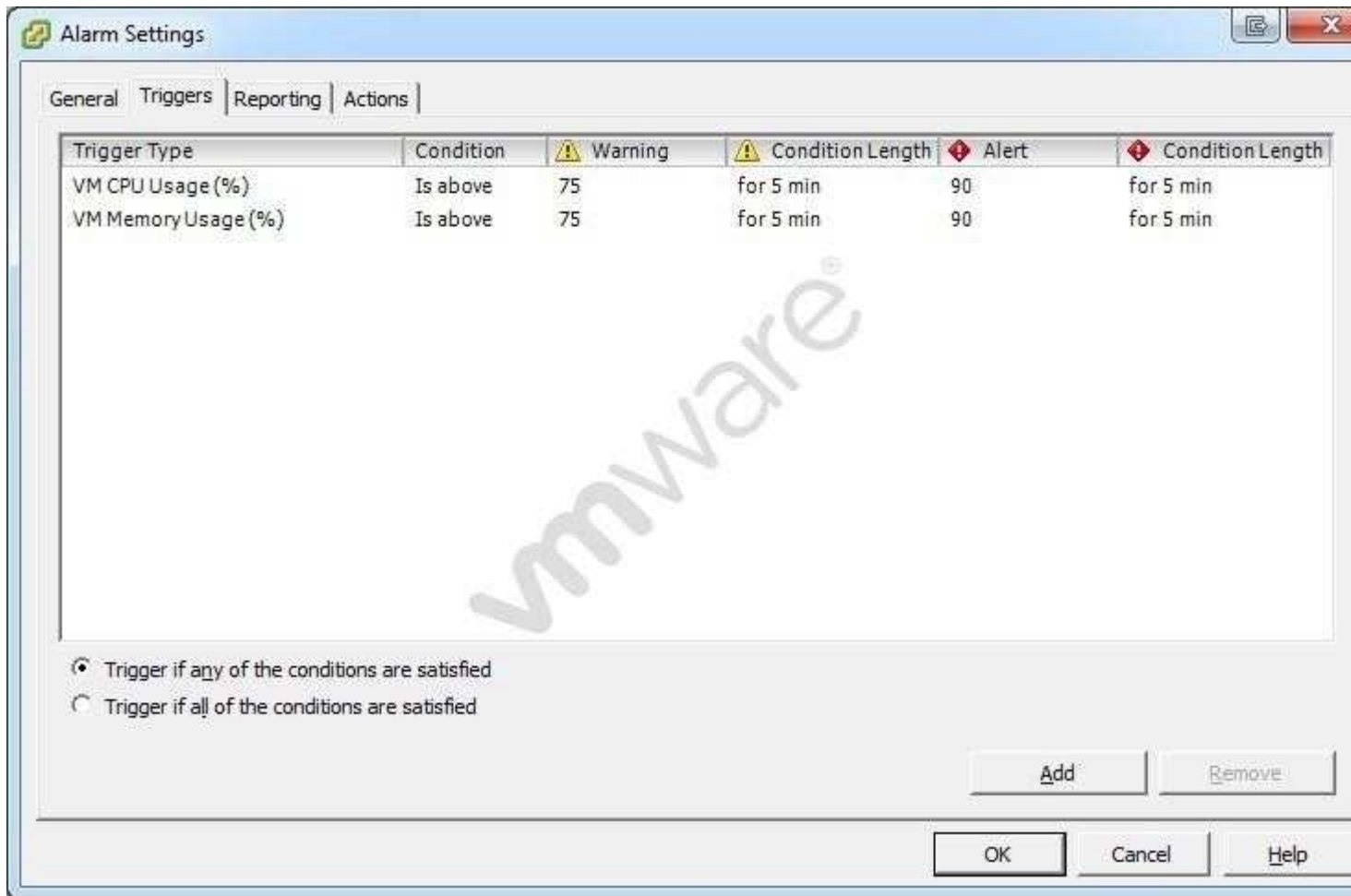
Click the Exhibit button. ACME Party Supplies Corporation has a requirement to monitor all virtual machines in a vSphere 5 environment for CPU and Memory usage.

An administrator configures an alarm in vCenter Server to send an alert when any VM exceeds 65% memory utilization and 75% CPU utilization.

The alarm should warn administrators if the virtual machine is within 20% of the defined thresholds.

The alarm has been created with the default options as shown in the exhibit.

Which three modifications must be made to the default settings in the alarm definition to satisfy the stated requirements? (Choose three.)



- A. Set the VM CPU Usage (%) Alert trigger to 75% and the VM Memory Usage (%) Alert trigger to 55%
- B. Set the VM CPU Usage (%) Alert trigger to 75% and the VM Memory Usage (%) Warning trigger to 55%
- C. Set the VM CPU Usage (%) Warning trigger to 65% and the VM Memory Usage (%) Warning trigger to 45%
- D. Set the Trigger if all of the conditions are satisfied radio button
- E. Set the Trigger if any of the conditions are satisfied radio button

**Correct Answer:** ACE

**Section:** Alarms

**Explanation**

**Explanation/Reference:**

#### QUESTION 14

An administrator is performing maintenance on a storage array used by an ESXi 5.x host. The administrator wants to disable alarm actions for the host while the maintenance is taking place. What procedure will accomplish this task?

- A. Go to the Alarms tab for each ESXi host in the DRS cluster. Locate storage-related alarms. Right-click and disable each alarm.
- B. Right-click the DRS cluster and select Alarm and Disable Alarm Actions.
- C. Right-click the ESXi host and select Alarm and Disable Alarm Actions.
- D. Go to the Alarms tab for the Datacenter containing the DRS cluster. Locate the storage-related alarms.

Right-click and disable each alarm.

**Correct Answer:** C

**Section:** Alarms

**Explanation**

**Explanation/Reference:**

#### QUESTION 15

An administrator would like to have vCenter take action any time a virtual machine is using over 90% of its available resources for five minutes or longer.

Which three actions can be taken by vCenter Server in response to the trigger without running a script? (Choose three.)

- A. Power on a VM
- B. Reboot Guest on VM
- C. Increase Virtual Machine Memory
- D. Migrate a VM
- E. Increase Virtual Machine CPU Shares

**Correct Answer:** ABD

**Section:** Alarms

**Explanation**

**Explanation/Reference:**

#### QUESTION 16

An administrator has been tasked with upgrading an existing host from ESX 4.1 to ESXi 5.x. The existing host has only vSwitch0 with all the default settings.

The upgraded host will have the following new requirements.

1. 116 virtual machines will be connected.
2. Four uplinks configured for port-based load balancing.
3. The switch will include a secondary heartbeat network for HA.

Which two statements are true about this configuration? (Choose two.)

- A. The Service Console Port will be removed during the upgrade
- B. The configuration requires only one VMkernel Port
- C. The default vSwitch0 is sufficient for this configuration
- D. A change to vSwitch0 Properties is required

**Correct Answer:** AC

**Section:** Standard Switches

**Explanation**

**Explanation/Reference:**

Because ESXi 5.0 has no Service Console, migrating from ESX 4.x to ESXi 5.0 removes the Service Console port group.

After the migration to ESXi 5.0 a new port group is created: the Management Network port group.

By default a standard vSwitch has 120 ports for VM and vKernel NICs, and 8 reserved ports for the uplinks. So a standard vSwitch would be enough: 116 for the VM's and 2 (dual HA) for the vKernel NICs = 118 ports (less than 120) and 4 uplinks (less than 8) so everything fits on a standard vSwitch without any modification

**QUESTION 17**

What are two methods of maximizing VMFS performance for virtual machines across all the hosts in a cluster?  
(Choose two.)

- A. Use disk shares to prioritize virtual machine disk I/O
- B. Enable Storage I/O control
- C. Enable Storage DRS with I/O load balancing
- D. Enable Host Cache using local SSD drives

**Correct Answer:** BC

**Section:** Datastores

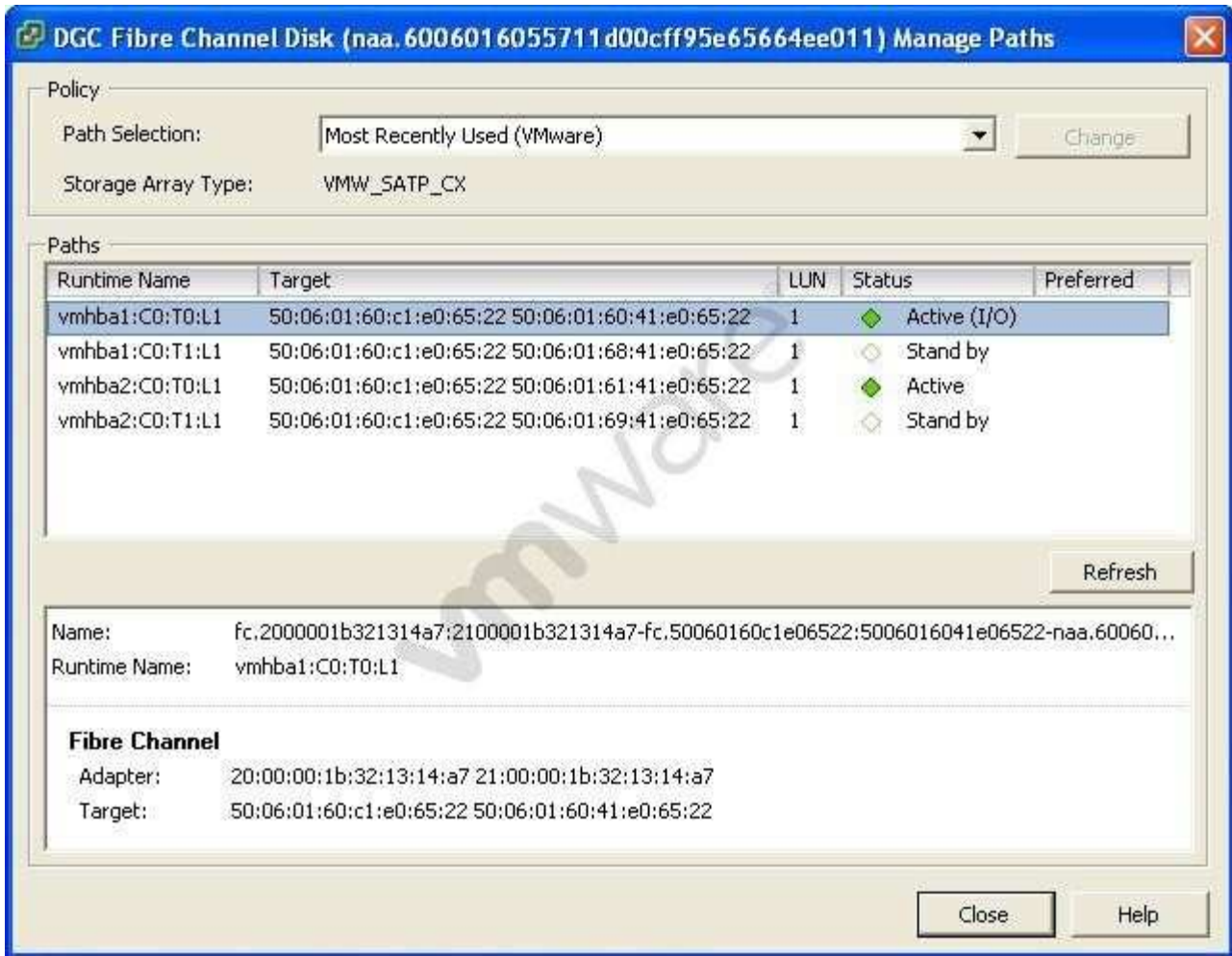
**Explanation**

**Explanation/Reference:**

**Exam B**

**QUESTION 1**

Click the Exhibit button. For the selected item, what two properties could the storage administrator use to create a zone? (Choose two.)



- A. 20.00.00.1b.32.13.14.a7
- B. vmhba1.C0.T0.L1
- C. fc.2000001b321314a7.2100001b321314a7
- D. 50.06.01.60.c1.e0.65.22

**Correct Answer:** AD

**Section:** Shared Storage

**Explanation**

**Explanation/Reference:**

**QUESTION 2**

Which two statements are true regarding vSphere standard switches? (Choose two.)

- A. Beaconing requires at least three uplinks to be considered useful.
- B. Virtual machines on different vSwitches require the vSwitches to share an uplink to communicate.

- C. vSphere virtual switches require at least one uplink adapter.
- D. Setting the number of ports to the maximum on a vSwitch will exhaust the total ports on a host.

**Correct Answer:** AD

**Section:** Standard Switches

**Explanation**

**Explanation/Reference:**

Beaconing is most useful with three or more uplinks in a team because ESX/ESXi can detect failures of a single uplink. When there are only two NICs in service and one of them loses connectivity, it is unclear which NIC needs to be taken out of service because both do not receive beacons and as a result all packets sent to both uplinks. Using at least three NICs in such a team allows for n-2 failures where n is the number of NICs in the team before reaching an ambiguous situation. These uplink NICs should be in an active/active or active/standby configuration because the NICs in an Unused state do not participate in the beacon probing process.

Maximum virtual network switch ports per host (vDS and vSS ports) = 4096. The host uses 8 ports for uplinks so the Virtual network switch creation ports per standard switch = 4088  
 $4096 - 4088 = 8$  ports available for the host. The host uses 8 ports for internal (uplinks) usage.

**Maximums**

Number of vSwitches: 248

Ports per vSwitch: 4088 (8 reserved by ESXi = 4096)

Maximum ports per host: 4096 (1 vSwitch maxed out would be the max per host)

Port groups / vSwitch: 256

Uplinks / vSwitch: 32

VMkernel NICs: 16

Maximum active ports per host: 1016

vDS per vCenter: 32

Maximum vDS ports per host: 4096

vDS ports per vCenter instance: 30,000

ESXi Hosts per vDS: 350

**QUESTION 3**

Which types of traffic can a VMkernel port be enabled to carry on a ESXi 5.x host? (Choose three.)

- A. NFS
- B. Fault Tolerant
- C. Management
- D. iSCSI
- E. vMotion

**Correct Answer:** BCE

**Section:** Networking

**Explanation**

**Explanation/Reference:**

**QUESTION 4**

What is a benefit of vCenter Linked-Mode?

- A. Allows the vCenter Server Virtual Appliance (vCSA) to manage multiple sites
- B. Pools vRAM entitlement

- C. Increases vCenter security
- D. Increases vCenter reliability

**Correct Answer:** B  
**Section:** Architecture  
**Explanation**

**Explanation/Reference:**

#### QUESTION 5

An administrator is attempting to clone a running virtual machine, but receives an error that prevents that the virtual machine is using a device that prevents the operation. What two device types listed below could be causing this error? (Choose two.)

- A. An independent mode virtual disk
- B. A physical compatibility mode RDM
- C. An LSI logic SAS adapter
- D. A BusLogic Parallel adapter

**Correct Answer:** AB  
**Section:** Troubleshoot Storage  
**Explanation**

**Explanation/Reference:**

[http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=1010396](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1010396)  
Cloning of powered on virtual machines with independent disk(s) attached is not possible.

[http://pubs.vmware.com/vsphere-50/index.jsp?topic=%2Fcom.vmware.vsphere.storage.doc\\_50%2FGUID-4B2479B1-541D-4FF4-865E-2EE711294478.html](http://pubs.vmware.com/vsphere-50/index.jsp?topic=%2Fcom.vmware.vsphere.storage.doc_50%2FGUID-4B2479B1-541D-4FF4-865E-2EE711294478.html)  
You cannot convert larger than 2TB RDMs to virtual disks, or perform other operations that involve RDM to virtual disk conversion. Such operations include cloning.

#### QUESTION 6

What two methods can be used to reduce the vMotion migration time of a virtual machine? (Choose two.)

- A. Enable High priority on the virtual machine before starting the Migrate wizard.
- B. Select High priority during the Migrate wizard.
- C. Lower the memory reservation for the virtual machine.
- D. Ensure the cluster has the default Swapfile policy set.

**Correct Answer:** BD  
**Section:** Migrate VMs  
**Explanation**

**Explanation/Reference:**

When migrating a live VM, the wizard will ask you what priority level you want. It states "high priority vMotions are favored over standard priority vMotions and are expected to perform better"

Open the cluster settings and goto Swapfile Location. You can change the default setting to store it in the datastore specified by the host. But it warns: "A host specified datastore may degrade vMotion performance for the affected virtual machines"

#### QUESTION 7

Which types of devices can be connected to a virtual machine during a vMotion migration? (Choose two.)

- A. SCSI pass-through devices connected to the ESXi 5 host.
- B. NFS mounts inside of the guest.
- C. USB pass-through devices connected to the ESXi 5 host.
- D. ISO images connected using the vSphere 5 client.

**Correct Answer:** BC  
**Section:** Migrate VMs  
**Explanation**

**Explanation/Reference:**

#### **QUESTION 8**

What are three of the steps recalled patches automatically go through in vSphere Update Manager? (Choose three.)

- A. Hosts with recalled patches are placed maintenance mode.
- B. Hosts with recalled patches are remediated.
- C. The recalled patch binary is deleted from the repository.
- D. The recalled patch is flagged in the database.
- E. A notification is generated in the notification tab.

**Correct Answer:** CDE  
**Section:** Update VMs and ESXi  
**Explanation**

**Explanation/Reference:**

#### **QUESTION 9**

What are two requirements for successful vMotion migration? (Choose two.)

- A. CPUs with matching SpeedStep settings must exist on both the source and destination hosts.
- B. Virtual machines must not utilize hardware local to the host such as SCSI pass-through.
- C. Virtual machines must not have a CDROM connected via the vSphere client.
- D. Dedicated Gigabit Ethernet Networking must exist between the source and destination hosts.

**Correct Answer:** BC  
**Section:** Migrate VMs  
**Explanation**

**Explanation/Reference:**

#### **QUESTION 10**

While performing a security check the vSphere administrator finds unassigned AD accounts with vSphere permissions. If the accounts are removed from Active Directory what will happen to any user logged into vCenter with those accounts?

- A. The vSphere client warns the user they will be logged out in 1 hour.
- B. The user can remain logged in indefinitely.
- C. The user is immediately disconnected from vCenter Server and cannot log back in.
- D. The user can remain logged into vCenter for up to 24 hours.

**Correct Answer:** D



**Section: Security****Explanation****Explanation/Reference:**

The default Active Directory validation period in vCenter is 1440 minutes. You can change it by going into Center Server Settings -- Active Directory and changing the validation period to something other than 1440 minutes.

If you wanted to kick them out sooner you could terminate the user session in the vCenter server.

**QUESTION 11**

Where are IP addresses for a vSphere Storage Appliance (VSA) cluster managed?

- A. On each VSA appliance using a web-based portal
- B. On the VSA Manager tab for the cluster hosting VSA
- C. On the VSA Manager appliance using a web-based portal
- D. On the vCenter server installed on a VSA host

**Correct Answer: B**

**Section: VSA**

**Explanation**

**Explanation/Reference:**

**VSA Cluster Properties** [Repair VSA Cluster Service...](#) [Enter Maintenance Mode...](#) [Enter Shutdown Mode...](#) [Refresh](#)

<b>VSA Cluster Status</b>		<b>VSA Cluster Network</b>		<b>Capacity</b>
Name:	vStorage Cluster	IP Address:	10.14.253.10	Physical C
Status:	✔ Online	Netmask:	255.255.0.0	Storage C
VSA Cluster Service IP Address:	10.14.253.11	Gateway:	10.14.1.10	<b>Time sin</b>
VSA Cluster Service Status:	✔ Online			

View:

Name ▲	Status	Capacity	Free	Used	Exported By
VSADs-0	✔ Online	415.91 MB	399.60 MB	16.31 MB	VSA-1
VSADs-1	✔ Online	415.91 MB	399.60 MB	16.31 MB	VSA-0

**Datastore Properties**

Name:	VSADs-0	<b>NFS Network</b>	<b>Capacity</b>
Status:	✔ Online	IP Address:	Total: 41
Exported By:	VSA-1	Netmask:	Used: 16
NFS Path:	//10.14.253.13/exports/ff47efbc-2966-4d86-8ec4-b8c82b60304c	Gateway:	Free: 39
	VLAN ID: 0		

- ▼ VSADs-0
  - ✔ Online
  - ▼ VSA-1
    - ✔ Online
    - Replica ✔ Online
  - ▼ VSA-0
    - ✔ Online
    - Replica ✔ Online

**QUESTION 12**

What are three valid subprofile configurations that can be edited with the Host Profile editor? (Choose three.)

- A. Cluster
- B. Date and Time
- C. Networking
- D. Security
- E. Licensing

**Correct Answer:** BCD

**Section:** ESXi

**Explanation**

**Explanation/Reference:**

**QUESTION 13**

Which three tasks can be selected from the home page of an ESXi 5.x host? (Choose three.)

- A. Browse objects managed by the host
- B. Browse NFS mounts for this host
- C. Download VMware vCenter or the vSphere client from vmware.com
- D. Shutdown or restart the host
- E. Download the PowerCLI installer

**Correct Answer:** ABC

**Section:** ESXi

**Explanation**

**Explanation/Reference:**

#### **QUESTION 14**

A new LUN has been provisioned to all hosts in a vSphere 5.x cluster. On one host a new VMFS datastore has been created. How will the new datastore be discovered by the other ESXi 5.x hosts?

- A. A rescan of all host bus adapters is periodically performed by ESXi hosts to detect new VMFS datastores.
- B. New VMFS volumes are automatically added to members of a cluster by vCenter 5.
- C. A manual refresh is required on each ESXi 5.x hosts to discover new VMFS datastores.
- D. A refresh of all host bus adapters is periodically performed by ESXi hosts to detect new VMFS datastores.

**Correct Answer:** C

**Section:** Datastores

**Explanation**

**Explanation/Reference:**

#### **QUESTION 15**

How can virtual machines be moved between datacenters?

- A. High-Availability failover
- B. Cold migration
- C. vMotion migration
- D. Storage vMotion migration

**Correct Answer:** B

**Section:** Migrate VMs

**Explanation**

**Explanation/Reference:**

Because of the namespace property, vMotion is only permitted between any two compatible hosts within a datacenter and even powered off virtual machines cannot be moved between hosts in different datacenters. Cold Migration is the only method.

## Exam C

### QUESTION 1

An administrator decides to use Data Recovery to back up some key virtual machines. What is the process to install Data Recovery?

- A. Download the executable from VMware.com and run from a machine with the vSphere Client installed.
- B. Use the vCenter Installer from the original vCenter media and select VMware Data Recovery
- C. Download the current OVF package from VMware.com onto a machine with the vSphere Client installed and use the Deploy OVF from Template option.
- D. Download the vmdk and vmx files from VMware.com and copy to a datastore. Right-click the vmx file and select Add to Inventory.

**Correct Answer:** C

**Section:** Backup VMs

**Explanation**

**Explanation/Reference:**

### QUESTION 2

Which two statements are true about the share value for a virtual machine after it has been added to a resource pool? (Choose two.)

- A. If a previously defined custom share value exists, the total shares in the pool should be evaluated to maintain the expected performance.
- B. If a previously defined custom share value exists, the %Shares value will automatically be adjusted relative to the total number of shares in the pool.
- C. If a previously defined share level (high, medium, low) exists, the %Shares value is changed to Custom and the previous value is retained.
- D. If there are no other objects in the pool the share value is irrelevant.

**Correct Answer:** AD

**Section:** Clusters

**Explanation**

**Explanation/Reference:**

### QUESTION 3

The storage administrator has recommended testing the performance benefits of jumbo frames and enabled jumbo frames on the storage array. The VMware administrator has enabled jumbo frames on the VMkernel port used for the software iSCSI initiator. What other two components must be modified to enable jumbo frames support for the software iSCSI initiator? (Choose two.)

- A. The physical switch
- B. The port group
- C. The software initiator
- D. The virtual switch

**Correct Answer:** AD

**Section:** Networking

**Explanation**

**Explanation/Reference:**

#### QUESTION 4

If you create a custom role and do not assign privileges what system-defined privileges are added? (Choose two.)

- A. System.Anonymous
- B. System.Read
- C. System.Write
- D. System.Administrator

**Correct Answer:** AB

**Section:** Security

**Explanation**

**Explanation/Reference:**

#### QUESTION 5

What function does Enhanced vMotion Compatibility (EVC) provide?

- A. The ability to enable Fault Tolerance on virtual machines that are not members of a cluster.
- B. The ability to use vMotion to migrate virtual machines between ESXi hosts with different CPU vendors.
- C. The ability to replace manual CPU identification masks with an automated process managed by the cluster.
- D. The ability to use vMotion to migrate virtual machines between hosts with identical CPUs but different vSphere versions.

**Correct Answer:** C

**Section:** Clusters

**Explanation**

**Explanation/Reference:**

#### QUESTION 6

An administrator is enabling Network I/O Control (NIOC) on a vSphere Distributed Switch. Which types of network traffic can be prioritized with NIOC by default? (Choose three.)

- A. FCP Traffic
- B. NFS Traffic
- C. Virtual Machine Traffic By Virtual Machine
- D. iSCSI Traffic
- E. vSphere Replication (VR) Traffic

**Correct Answer:** BDE

**Section:** Distributed Switches

**Explanation**

**Explanation/Reference:**

NIOC classifies traffic into a number of predefined resource pools:

- vMotion
- **iSCSI**
- FT logging
- Management
- **NFS** (Network File System)
- Virtual machine traffic

- vSphere **Replication** traffic
- User Defined

NIOC provides users with the following features:

- Isolation: Ensure traffic isolation so that a given flow will never be allowed to dominate over others, preventing drops and undesired jitter
- Shares: Allow flexible networking capacity partitioning to help users to deal with over commitment when flows compete aggressively for the same resources
- Limits: Enforce traffic bandwidth limit on the overall VDS set of dvUplinks
- Load-Based Teaming: Efficiently use a VDS set of dvUplinks for networking capacity
- IEEE 802.1p tagging: Tag packets going out of the vSphere host for proper handling by physical network resources.

<http://www.vmware.com/products/datacenter-virtualization/vsphere/network-io-control.html>

### QUESTION 7

The RDP performance for a virtual machine on an ESXi 5.x host appears to be degraded. What are two possible causes of the problem? (Choose two.)

- A. The virtual machine has a high Ready value.
- B. The virtual machine's network adaptor is not configured to Connect at power on.
- C. The virtual machine's network adaptor is not configured as connected.
- D. The virtual machine is on a physical network that has become saturated.

**Correct Answer:** AD

**Section:** Monitor Hosts, Guests and vCentre

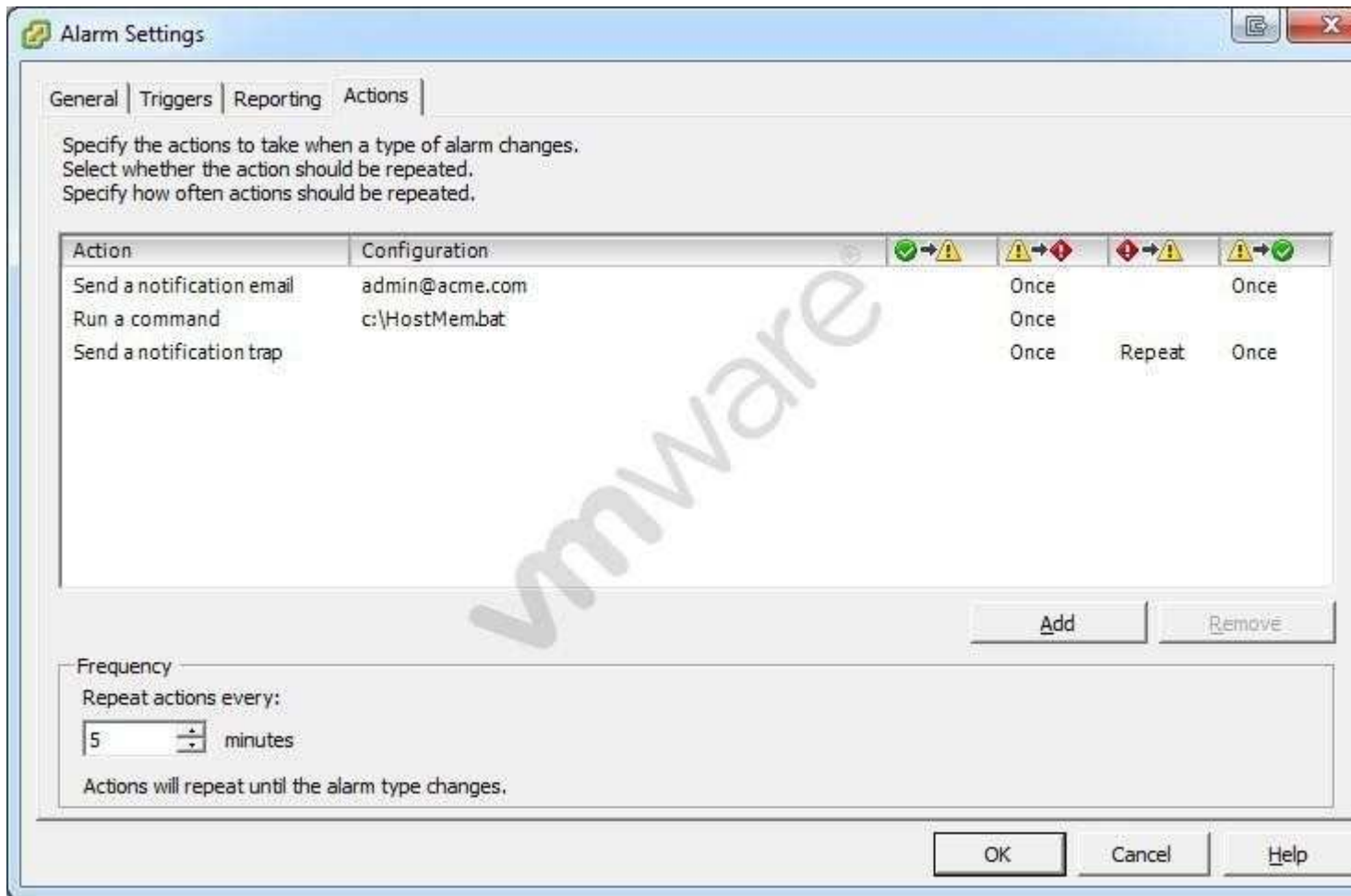
**Explanation**

#### **Explanation/Reference:**

The higher the ready time is, the slower the virtual machine is performing. The ready time should preferably be as low as possible. Virtual machines that are allocated multiple CPUs or have high timer interrupts are more frequently seen with high ready time values.

### QUESTION 8

Click the Exhibit button. An administrator is seeing a warning on one of their hosts. The warning in the Triggered Alarms panel appears to come from a custom configured host alarm. The administrator has not seen any actions taken for this alarm even though the actions are configured in the alarm definition. The configured actions are shown in the exhibit. What change can the administrator make to correct the problem?



- A. Configure the Alarm Frequency to repeat more often.
- B. Add an action for when the alarm changes from yellow to red.
- C. Add an action for when the alarm changes from green to yellow.
- D. Configure the alarm yellow to red action to repeat for all three actions configured.

**Correct Answer:** C

**Section:** Alarms

**Explanation**

**Explanation/Reference:**

"First Test, First Pass" - www.lead2pass.com 38

#### QUESTION 9

Users are complaining that they cannot access their files on a file server virtual machine. The vSphere Client shows that a triggered alarm stating disk latency is beyond the default threshold for the datastore where the file server virtual machine is located. The path selection policy has been set by the ESXi host to Fixed with default path settings. Which two options could be used to increase performance of the file server virtual machine? (Choose two.)

- A. Use disk shares to increase the priority for the datastore housing the file server virtual machine.
- B. Use vMotion to relocate the VM to an ESXi host with lower HBA saturation.
- C. Change the path selection policy to Round Robin.
- D. Change the path selection policy to Most Recently Used (MRU).

**Correct Answer:** BC  
**Section:** Troubleshoot Storage  
**Explanation**

**Explanation/Reference:**

**QUESTION 10**

A new ESXi 5.x host is set up with two virtual machines. A memory limit is applied so that users will have predictable performance as virtual machines are added to the host. What is the effect of applying a memory limit to these virtual machines?

- A. No physical memory will be granted above the limit, but VSWP can be used.
- B. No physical memory will be granted above the limit, unless expandableVM shares are set to high.
- C. Physical memory will be granted above the limit under normal conditions. Disk pages will be used if contention occurs.
- D. Physical memory will be granted above the limit under normal conditions, unless physical memory runs out.

**Correct Answer:** A  
**Section:** VMs  
**Explanation**

**Explanation/Reference:**

**QUESTION 11**

An administrator is updating a program running on a virtual machine. The update file has been downloaded as an .iso file and placed on a shared NFS datastore. An attempt to mount the .iso file to the virtual machine fails, but subsequent testing shows that the .iso file can be mounted to a virtual machine running on another ESXi 5.x host. Which step can be taken to enable access to the .iso file for the affected virtual machine?

- A. Reboot all ESXi hosts in the cluster where the affected virtual machine is running.
- B. Refresh all datastores on the ESXi host running the affected VM.
- C. Rescan all datastores on the ESXi host running the affected VM.
- D. Unmount the volume from the ESXi host running the affected VM, and then add as a new datastore.

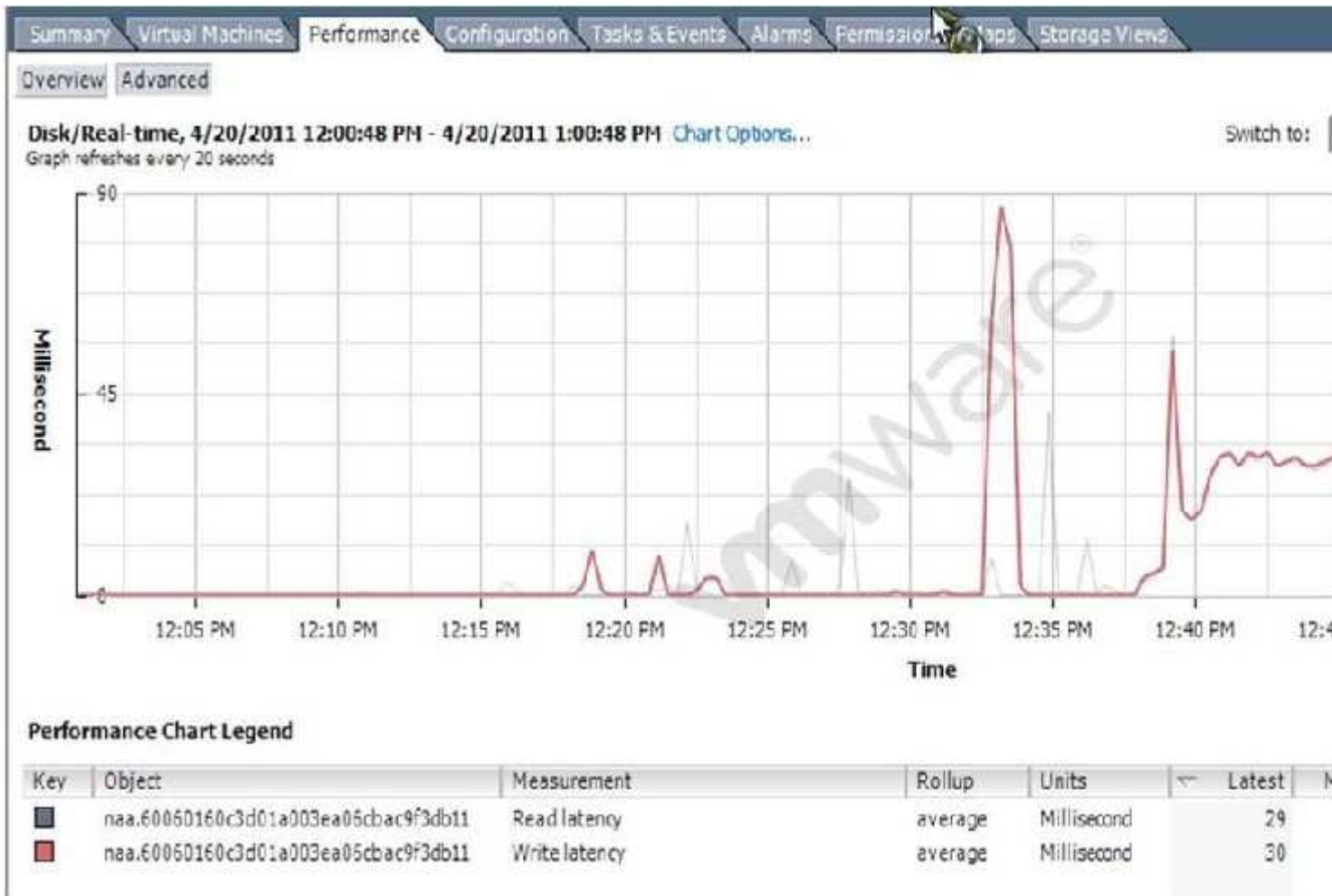
**Correct Answer:** B  
**Section:** Datastores  
**Explanation**

**Explanation/Reference:**

**QUESTION 12**

Click the Exhibit button. What does the graph in the exhibit indicate?





- A. The average amount of read and write latency from the ESXi host to the SAN.
- B. The average amount of read and write latency from the guest operating system to the virtual machine virtual disk file.
- C. The average amount of read and write latency from the ESXi host to the datastore.
- D. The average amount of read and write latency from the cluster to the datastore.

**Correct Answer: C**

**Section: Troubleshoot Storage**

**Explanation**

**Explanation/Reference:**

**QUESTION 13**

Which three services will continue to function when vCenter Server is unavailable? (Choose three.)

- A. Storage DRS
- B. Fault Tolerance (FT)
- C. vMotion
- D. Thin Provisioning
- E. High Availability

**Correct Answer: BDE**

**Section: vCenter**  
**Explanation**

**Explanation/Reference:**

**QUESTION 14**

A database administrator has reported periodic poor performance on a particular virtual machine. The virtual machine administrator has noticed a significant drop in performance when utilized memory exceeds 1GB . What does this indicate and what could be checked next?

- A. The application problems are definitely due to a non-memory-related problem. CPU affinity settings should be checked for this virtual machine.
- B. The application problems are definitely due to a non-memory-related problem. CPU utilization should be checked next, using Windows Task Manager.
- C. The virtual machine might not have physical memory available. Compression and swap activity on the ESXi host should be checked next.
- D. The virtual machine might not have physical memory available. Ensure the memory limit on the VM is set to 0 MB

**Correct Answer: C**

**Section: Troubleshoot Hosts**

**Explanation**

**Explanation/Reference:**

[http://www.vmware.com/files/pdf/mem\\_mgmt\\_perf\\_vsphere5.pdf](http://www.vmware.com/files/pdf/mem_mgmt_perf_vsphere5.pdf)

**QUESTION 15**

What would be a valid reason to enable traffic shaping?

- A. Limiting the bandwidth of a FTP server
- B. Restricting the load on a IDS server
- C. Limiting the bandwidth used by an independent hardware iSCSI adapter
- D. Improving the performance of a CPU-intensive application server

**Correct Answer: A**

**Section: Networking**

**Explanation**

**Explanation/Reference:**

**QUESTION 16**

Which option could be used for vSphere HA heartbeats?

- A. An iSCSI LUN used for booting the master ESXi host.
- B. An iSCSI LUN backing an RDM connected over 10GB Ethernet
- C. An NFS datastore shared with the all hosts, sync, no\_root\_squash and read only options
- D. A Fibre Channel LUN on an 8GB active/active array backing a VMFS5 datastore

**Correct Answer: D**

**Section: Clusters**

**Explanation**

**Explanation/Reference:**

**QUESTION 17**

When comparing software iSCSI initiators with independent hardware initiators, what are the additional CHAP security levels available for a software implementation? (Choose two.)

- A. Do not use CHAP unless required by target
- B. Use CHAP
- C. Use CHAP unless prohibited by target
- D. Do not use CHAP

**Correct Answer:** AB

**Section:** Shared Storage

**Explanation**

**Explanation/Reference:**

## Exam D

### QUESTION 1

The storage administrator is preparing an action plan to upgrade a Fibre Channel storage array. The current plan will result in extended downtime for a VMFS LUN that is part of a SDRS cluster. What steps can be taken in a vSphere 5.x environment to minimize the impact of the downtime? (Choose two.)

- A. Ensure there are multiple active paths to the LUN
- B. Ensure DRS is configured properly
- C. Use Storage vMotion to migrate the affected VMDKs
- D. Place the datastore into maintenance mode

**Correct Answer:** CD

**Section:** Shared Storage

**Explanation**

**Explanation/Reference:**

### QUESTION 2

Which two types of information can be obtained about a VMFS datastore using the Summary tab for a connected host in the vSphere Client? (Choose two.)

- A. Multipathing status for the datastore
- B. Hardware Acceleration status
- C. Alarm Actions status for the datastore
- D. Runtime name of the datastore

**Correct Answer:** BC

**Section:** Datastores

**Explanation**

**Explanation/Reference:**

### QUESTION 3

Two child resource pools exist for a DRS cluster. The Production resource pool has been configured with a CPU reservation of 20GHz and a memory reservation of 20GB . The pool has 16 single- processor virtual machines and 4 dual-processor virtual machines. Each of these virtual machines has a CPU reservation of 1GHz and a memory reservation of 1GB . The Development resource pool and it's virtual machines have been configured with no reservations. The pool has 1 single-processor virtual machine and 1 dual-processor virtual machine. CPU Shares are set to 4000 and Memory Shares are set to 163840. The Production team members occasionally complain about the performance of their servers. Which two options could be part of the plan to resolve the issue while minimizing the amount of resources reserved by the pool? (Choose two.)

- A. Increase the amount of CPU resources for the Production virtual machines to the processor speed of the host
- B. Set the CPU Shares of Production to 40000
- C. Double the CPU reservation on the Production virtual machines and pool
- D. Set the Memory Shares of Production to 20480

**Correct Answer:** BC

**Section:** Resource Pools

**Explanation**

**Explanation/Reference:**

"Increase the amount of CPU resources for the Production virtual machines to the processor speed of the host" makes no sense. The wording does not specify if they are talking about reservation or not. Also, for it to work, Expandable Reservation needs to be enabled, and we do not know that. "Set the Memory Shares of Production to 20480" is also incorrect because that would mean the Production has less memory shares than Development.

"Set the CPU Shares of Production to 40000" is correct because the amount of shares per processor ( $16 + 2 \times 4$ ) in Prod ( $40,000/24 = 1667$ ) is better than Dev ( $4,000/3 = 1333$ ). The question asks for 2 so that leaves "Double the CPU reservation on the Production virtual machines and pool". This could be either true or false given different Proc speeds of the ESXi host. So since it COULD be true I'll go for it.

#### QUESTION 4

An administrator has just completed an update of an ESXi 5.x host. Prior to the upgrade, a backup of the host configuration was performed. After the upgrade, the backup was restored to the upgraded host. Shortly after the upgrade was completed, the administrator receives complaints that users are unable to power on virtual machines. What are the two most likely reasons that VMs cannot power up on this host? (Choose two.)

- A. The update reset the virtual machine reservations.
- B. It has been more than 60 days since the host was originally installed.
- C. Backup and restore does not include licensing.
- D. The backup was performed prior to a license key being applied.

**Correct Answer:** BD

**Section:** Install & Upgrades

**Explanation**

**Explanation/Reference:**

#### QUESTION 5

Which memory conservation technique collaborates with the server to reclaim pages that are redundant in a virtual machine or virtual machines?

- A. Memory Balloon Driver
- B. Transparent Page Sharing
- C. Redundant Memory Driver
- D. VMkernel Swap

**Correct Answer:** B

**Section:** VMs

**Explanation**

**Explanation/Reference:**

<http://blogs.vmware.com/performance/2011/09/understanding-memory-resource-management-in-vsphere-5.html>

- **Transparent page sharing (TPS)** — removes redundant pages with identical content
- **Ballooning** — artificially increases the memory pressure inside the guest
- **Memory compression** — compresses the pages that need to be swapped out
- **Hypervisor swapping** — ESXi directly swaps out the virtual machine's memory
- **Swap to host cache (swap to SSD)** — reclaims memory by storing the swapped out pages in the host cache on a solid-state drive

#### QUESTION 6

Which two VMware software components can be updated by Update Manager? (Choose two.)

- A. ESX 3.5
- B. Virtual Appliances
- C. vCenter Server
- D. Guest OS

**Correct Answer:** AB

**Section:** Update VMs and ESXi

**Explanation**

**Explanation/Reference:**

#### QUESTION 7

Which network settings are only available with vSphere Distributed Switches?

- A. Jumbo Frames
- B. PVLAN
- C. Load Balancing
- D. Promiscuous Mode

**Correct Answer:** B

**Section:** Distributed Switches

**Explanation**

**Explanation/Reference:**



<http://www.gratisexam.com/>

#### QUESTION 8

Which two actions can be scheduled through the Scheduled Task wizard in the vSphere Client? (Choose two.)

- A. Remove a host.
- B. Change the VM power state.
- C. Create a virtual machine.
- D. Revert to a snapshot of a virtual machine.

**Correct Answer:** BC

**Section:** vCenter

**Explanation**

**Explanation/Reference:**

#### QUESTION 9

What are two reasons why a company would choose to use ESXi 5.x instead of using VMware Workstation 8? (Choose two.)

- A. The company needs to be able to assign existing physical disks to virtual machines.
- B. The company needs remote management of virtual machines
- C. The company needs support for virtual machines with up to sixteen vCPUs
- D. The company wants the lowest overhead possible for the virtual infrastructure.

**Correct Answer:** CD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 10**

An administrator is migrating a virtual machine in a DRS cluster. The migration fails the validation check because of a CPU incompatibility issue. Which items below could be causing this issue? (Choose two.)

- A. Inconsistent CPU manufacturers.
- B. Inconsistent CPU steppings.
- C. Inconsistent CPU generations.
- D. Inconsistent CPU GHZ.

**Correct Answer:** AC

**Section:** Troubleshoot HA/DRS

**Explanation**

**Explanation/Reference:**

#### **QUESTION 11**

What options must be configured in the vCenter Server settings before email alerts can be sent? (Choose two.)

- A. Sender email address
- B. SNMP address information
- C. SMTP server information
- D. Email authentication information

**Correct Answer:** AC

**Section:** Monitor Hosts, Guests and vCentre

**Explanation**

**Explanation/Reference:**

Email alerts only require SMTP server address and the sender's email address.

#### **QUESTION 12**

What are two valid use cases for vCenter Server Linked Mode? (Choose two.)

- A. An administrator wants to migrate running virtual machines between vCenter Server instances.
- B. An administrator wants to increase the vRAM entitlement pool.
- C. An administrator wants to manage a virtual server environment and a View environment from the same pane of glass.
- D. An administrator wants to search all inventory objects across multiple vCenter Server Virtual Appliance (vCSA) instances from one vSphere Client

**Correct Answer:** BC

**Section:** vCenter

## Explanation

### Explanation/Reference:

#### QUESTION 13

An administrator plans to deploy ESXi 5.x on a blade server containing no local disks. What boot options are supported for use in place of local disks? (Choose three.)

- A. An SD card
- B. A NIC with iBFT
- C. Auto Deploy
- D. A server with IPMI or iLO
- E. A dedicated NFS share

**Correct Answer:** ABC

**Section:** Install & Upgrades

### Explanation

#### Explanation/Reference:

iBFT = iSCSI Boot Firmware Table

#### QUESTION 14

An administrator plans to use an upgrade script to upgrade a number of ESXi 5.x hosts. What options are available for the kickstart file? (Choose two.)

- A. dryrun - Parse and check script but does not install
- B. overwritevmfs - permits overwriting of existing VMFS volumes
- C. vcenter - specifies vCenter Server
- D. autodeploy - defines autodeploy options

**Correct Answer:** AB

**Section:** Install & Upgrades

### Explanation

#### Explanation/Reference:

#### QUESTION 15

An administrator is upgrading an ESXi 3.5 host to ESXi 5.x with an intermediate upgrade to 4.0 using Update Manager. The host has a single Intel Xeon processor, 4GB of RAM, and a VMFS datastore on a private, SAN-attached LUN. What might cause the upgrade to be unsuccessful?

- A. The ESXi host has 4GB RAM.
- B. The ESXi host has one processor.
- C. ESXi 3.5 is not supported for upgrade.
- D. Update Manager cannot upgrade a previously upgraded host.

**Correct Answer:** D

**Section:** Install & Upgrades

### Explanation

#### Explanation/Reference:

- The minimum RAM is 2Gb so 4Gb is OK
- ESXi 3.5 is supported so long as you upgrade to 4.0 as an intermediate step
- ESXi 5.0 requires a host with at least 2 cores: Xeon CPUs have 2 cores.



<http://blogs.vmware.com/vsphere/2011/08/esxi-and-lopsided-bootbanks.html>

"For most ESXi 4.x hosts, the partition table is not rewritten in the upgrade to ESXi 5.0. The partition table is rewritten for systems that have lopsided bootbanks. Lopsided boot banks can occur in systems that are upgraded from ESXi 3.5 to ESXi 4.x, and then upgraded directly to ESXi 5.0."

... the only limitation is that **you won't be able to use Update Manager to upgrade the host to ESXi 5.0**. Update Manager assumes the boot banks are both at 250MB. If it detects one boot bank is smaller than the other it will report an invalid boot disk and won't even try to upgrade.

#### QUESTION 16

An administrator is performing an upgrade on an ESXi host. Which step can be used to back up the host before the upgrade is performed?

- A. Using the vSphere Client connected to vCenter, right-click the host and choose Host Backup.
- B. Log into a vMA appliance and run vicfg-cfgbackup to save the ESXi host configuration.
- C. Using the vSphere Client connected directly to the host, right-click the host and choose Host Backup.
- D. Use PowerCLI to run the host-backup cmdlet to save the ESXi host configuration.

**Correct Answer: B**

**Section: Install & Upgrades**

**Explanation**

**Explanation/Reference:**

#### QUESTION 17

For security reasons, an administrator removes a user from the Active Directory domain used by all ESXi hosts for authentication. At the time the user is removed they are actively logged into an ESXi 5.x host through the vSphere Client. What is true regarding this scenario?

- A. The user immediately loses connectivity to and permissions on the host.
- B. The user retains permissions and connectivity to the host for up to 24 hours.
- C. The user retains permissions on the host until the host is rebooted.
- D. The user retains permissions on the object until the next time the user logs in to vCenter Server.

**Correct Answer: B**

**Section: Security**

**Explanation**

**Explanation/Reference:**

[http://pubs.vmware.com/vsphere-50/index.jsp?topic=/com.vmware.vsphere.upgrade.doc\\_50/GUID-DD8C6FF2-1949-4C82-A4BA-578988CA7BA1.html](http://pubs.vmware.com/vsphere-50/index.jsp?topic=/com.vmware.vsphere.upgrade.doc_50/GUID-DD8C6FF2-1949-4C82-A4BA-578988CA7BA1.html)

Removing or Modifying vCenter Server Users

Users who are logged in and are removed from the AD domain keep their vSphere permissions until the next validation period. The default is every 24 hours. It can be changed in the vCenter Server settings.

Notes

Removing a group does not affect the permissions granted individually to the users in that group or permissions granted as part of inclusion in another group.

If you change a user's name in the domain, the original user name becomes invalid in the vCenter Server system. If you change the name of a group, the original

group becomes invalid after you restart the vCenter Server system.

When you remove users from vCenter Server, you also remove permissions granted to those users. Modifying a user or group name causes the original name to become invalid.

To remove users from vCenter Server, you must remove them from the domain or Active Directory users list. If you remove users from the vCenter Server domain, they lose permissions to all objects in the vSphere environment and cannot log in again.

#### **QUESTION 18**

Acme Disposal Services is a large company which has many administrators. For auditing purposes, each administrator must use a unique account to access ESXi Standard hosts. Which two actions satisfy this requirement and require the least amount of administrative effort? (Choose two.)

- A. Configure Authentication Services for Active Directory based authentication to the ESXi hosts
- B. Configure a unique root level account for each administrator using the vSphere Client
- C. Configure user accounts in a host profile, then apply the host profile to the ESXi hosts
- D. Configure Active Directory group ESX Admins with each administrator's AD account

**Correct Answer:** AD

**Section:** Security

**Explanation**

**Explanation/Reference:**

#### **QUESTION 19**

Which two features secure the VMkernel? (Choose two.)

- A. Memory Encryption
- B. Hardware assist virtualization
- C. Kernel module integrity
- D. Trusted Platform Module (TPM)

**Correct Answer:** CD

**Section:** Security

**Explanation**

**Explanation/Reference:**

## Exam E

### QUESTION 1

What Windows security object is granted the vCenter Server administrator role during installation?

- A. Domain Admins
- B. Administrator
- C. Administrators
- D. ESX Admins

**Correct Answer: C**

**Section: Security**

**Explanation**

**Explanation/Reference:**

### QUESTION 2

Which component is the metering tool for vCloud administration?

- A. VMware vCenter Chargeback
- B. VMware vCloud Service Manager
- C. VMware vCloud Request Manager
- D. VMware vCloud Director

**Correct Answer: A**

**Section: Architecture**

**Explanation**

**Explanation/Reference:**

### QUESTION 3

Which VMware solution allows for the automated discovery and mapping of applications running over the VM infrastructure?

- A. VMware vCloud Director
- B. VMware vCenter Infrastructure Navigator
- C. VMware Service Manager
- D. VMware vSphere 5

**Correct Answer: B**

**Section: Architecture**

**Explanation**

**Explanation/Reference:**

### QUESTION 4

A vSphere Standard Switch has been configured for IP-based load balancing using two uplinks. A new uplink is added to the vSwitch. What is the status of the uplink by default?

- A. The uplink is placed in standby mode until it is added to the active NIC team.
- B. The uplink is marked as active but does not participate in the active NIC team until assigned to a port group.
- C. The uplink is marked as active, but cannot be used by the active NIC team until it is added to the existing

802.3ad group on the physical switch.

D. The uplink is marked as unused until it is added to the active NIC team.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

IP Hash Load Balancing requires static EtherChannel or static 802.3ad to be configured on the switching infrastructure uses a hashing algorithm based on source and destination IP address to determine which host uplink egress traffic should be routed through.

### QUESTION 5

Click the Exhibit button. An administrator has been tasked with adding a newly installed uplink to vSwitch1. Based on the exhibit, what is a true statement about this environment?



A. The server does not have available vSwitches to be assigned to this uplink.

B. The available uplinks are not compatible with a standard vSwitch.

C. The host needs a driver installed for the newly installed uplink.

D. The current uplinks cannot be attached because they are in use by other port groups.

**Correct Answer: C**  
**Section: Standard Switches**  
**Explanation**

**Explanation/Reference:**

The newly installed adapter is not showing up on the exhibit therefore the driver has to be installed for it to show up.

**QUESTION 6**

When you are configuring the NIC teaming policy for a vSwitch, what happens when the Failback option is set to Yes?

- A. A failed uplink will be left inactive upon recovery until another uplink fails.
- B. The physical switches are notified when a failover event occurs.
- C. The physical switches are notified when a failback event occurs.
- D. A failed uplink is returned to active duty immediately upon recovery.

**Correct Answer: D**  
**Section: Standard Switches**  
**Explanation**

**Explanation/Reference:**

**QUESTION 7**

Which three features are only available in the vSphere Client when using a vSphere Distributed Switch?  
(Choose three.)

- A. Port Mirroring
- B. PVLAN tagging
- C. Storage I/O Control
- D. Ingress Traffic Shaping
- E. 802.1q VLAN Tagging

**Correct Answer: ABD**  
**Section: Distributed Switches**  
**Explanation**

**Explanation/Reference:**

**Comparing vNetwork Standard Switch with vNetwork Distributed Switch**

These features are available with both types of virtual switches:

- Can forward L2 frames
- Can segment traffic into VLANs
- Can use and understand 802.1q VLAN encapsulation
- Can have more than one uplink (NIC Teaming)
- Can have traffic shaping for the outbound (TX) traffic

These features are available only with a Distributed Switch:

- Can shape inbound (RX) traffic
- Has a central unified management interface through vCenter Server
- Supports Private VLANs (PVLANs)
- Provides potential customization of Data and Control Planes

vSphere 5.x provides these improvements to Distributed Switch functionality:

- Increased visibility of inter-virtual machine traffic through Netflow
- Improved monitoring through port mirroring (dvMirror)
- Support for LLDP (Link Layer Discovery Protocol), a vendor-neutral protocol.

[http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=1010555](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1010555)

#### **QUESTION 8**

Which type of port on a secondary private VLAN can communicate with promiscuous ports and other ports that share its VLAN tag?

- A. Isolated
- B. Promiscuous
- C. Community
- D. Trunked

**Correct Answer: C**

**Section: Networking**

**Explanation**

**Explanation/Reference:**

**Three types of Secondary PVLANS:**

Promiscuous – A node attached to a port in a promiscuous secondary PVLAN may send and receive packets to any node in any others secondary VLAN associated to the same primary. Routers are typically attached to promiscuous ports.

Isolated – A node attached to a port in an isolated secondary PVLAN may only send to and receive packets from the promiscuous PVLAN.

Community – A node attached to a port in a community secondary PVLAN may send to and receive packets from other ports in the same secondary PVLAN, as well as send to and receive packets from the promiscuous PVLAN.

[http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=1010691](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1010691)

#### **QUESTION 9**

Which methods can be used to migrate a VMkernel port from a vSphere Standard Switch to a vSphere Distributed Switch? (Choose two.)

- A. Use the Add Virtual Adapter wizard from the Manage Virtual Adapters window.
- B. Use the Manage Hosts wizard from the Configuration tab of the vDS.
- C. Use the Migrate Virtual Machine Networking option to select the port from a list.
- D. Edit the Network Adapter settings for the port and select a dvPort group from the list.

**Correct Answer: AB**

**Section: Distributed Switches**

**Explanation**

**Explanation/Reference:**

#### **QUESTION 10**

Which statement describes the functionality of traffic shaping on a vSphere Standard Switch?

- A. vSphere Standard Switches support only egress traffic shaping.
- B. vSphere Standard Switches support both ingress and egress traffic shaping.
- C. vSphere Standard Switches support best-effort traffic shaping based on quality of service (QoS).
- D. vSphere Standard Switches support only ingress traffic shaping.

**Correct Answer:** A

**Section:** Standard Switches

**Explanation**

**Explanation/Reference:**

A traffic shaping policy is defined by average bandwidth, peak bandwidth, and burst size. You can establish a traffic shaping policy for each port group and each distributed port or distributed port group.

**ESXi shapes outbound network traffic on standard switches and inbound and outbound traffic on distributed switches.** Traffic shaping restricts the network bandwidth available on a port, but can also be configured to allow bursts of traffic to flow through at higher speeds.

#### QUESTION 11

An administrator is creating a vSphere Standard Switch with virtual machine and VMkernel networking. The administrator has two uplinks attached to the switch and wants to make sure multiple sessions for a virtual machine can utilize both uplinks. Which load-balancing policy will guarantee this requirement is met, even if additional management or virtual machine traffic is added to the switch in the future?

- A. Route based on IP hash
- B. Route based on source MAC hash
- C. Route based on the originating port ID
- D. Use explicit failover.

**Correct Answer:** A

**Section:** Standard Switches

**Explanation**

**Explanation/Reference:**

IP Hashing uses IP address of the virtual machine. So the load balancing is done at VM level.

"It is this fact that makes IP Hash so desirable from a performance standpoint: It is the only load balancing type that could (in theory) allow any single virtual machine to utilize the bandwidth available on all network adapters in the team."

<http://blogs.vmware.com/kb/2013/03/troubleshooting-network-teaming-problems-with-ip-hash.html>

Within ESXi 5.0, there are 4 methods of Load Balancing.

1. Route based on the originating port ID Select an uplink based on the virtual port where the traffic entered the standard switch.
2. Route based on IP hash Select an uplink based on a hash of the source and destination IP addresses of each packet. For non-IP packets, whatever is at those offsets is used to compute the hash.
3. Route based on source MAC hash Select an uplink based on a hash of the source Ethernet.
4. Use explicit fail-over order Always use the highest order uplink from the list of Active adapters that passes fail-over detection criteria.

#### QUESTION 12

An administrator wants to determine the current network adapter configuration for an uplink on an ESXi 5.x host. Which three items can be viewed from the Network Adapters section of the Configuration tab, using the vSphere Client? (Choose three.)

- A. VLAN configuration
- B. Adapter Driver
- C. Actual speed and duplex

- D. Adapter Name
- E. vSwitch configuration

**Correct Answer:** CDE  
**Section:** Networking  
**Explanation**

**Explanation/Reference:**

<span>al Machines</span> <span>Resource Allocation</span> <span>Performance</span> <span>Configuration</span> <span>Users &amp; Groups</span> <span>Events</span> <span>Permissions</span>							
Network Adapters							
Device	Speed	Configured	Switch	MAC Address	Observed IP ranges	Wake on LAN Sup...	
<b>Broadcom NetXtreme II BCM5708 1000Base-T</b>							
vmnic3	down	Negotiate	None	00:1e:4f:fd:0a...	None	Yes	
vmnic2	1000 ...	1000 Full	None	00:1e:4f:fd:0a...	172.17.101.1-172.17...	Yes	
vmnic1	down	Negotiate	None	00:1e:4f:fc:64...	None	Yes	
vmnic0	1000 ...	1000 Full	vSwitch0	00:1e:4f:fc:64...	172.17.101.1-172.17...	Yes	
<b>82576 Gigabit Network Connection</b>							
vmnic9	down	Negotiate	None	00:1b:21:47:...	None	No	
vmnic8	down	Negotiate	None	00:1b:21:47:...	None	Yes	
vmnic11	down	Negotiate	None	00:1b:21:47:...	None	No	
vmnic10	down	Negotiate	None	00:1b:21:47:...	None	No	
<b>Gigabit VT Quad Port Server Adapter</b>							
vmnic7	down	Negotiate	None	00:1b:21:28:...	None	No	
vmnic6	down	Negotiate	None	00:1b:21:28:...	None	No	
vmnic5	down	Negotiate	None	00:1b:21:28:...	None	No	
vmnic4	down	1000 Full	vSwitch0	00:1b:21:28:...	None	No	

**QUESTION 13**

When a virtual machine interacts with persistent thick virtual disks stored on a traditional Fibre Channel storage array, which two actions are always taken by the VMkernel? (Choose two.)

- A. The file corresponding to the virtual machine is located on the VMFS datastore using NPIV.
- B. Correlate the blocks requested by the virtual machine with the actual blocks on the array.
- C. Send the I/O request through the device driver to the physical HBA or software FCoE adapter.
- D. Place an atomic lock on the metadata database for the VMFS volume.

**Correct Answer:** BC  
**Section:** Shared Storage  
**Explanation**

**Explanation/Reference:**

<http://pubs.vmware.com/vsphere-51/topic/com.vmware.ICbase/PDF/vsphere-esxi-vcenter-server-51-storage-guide.pdf>

**How Virtual Machines Access Data on a Fibre Channel SAN**

ESXi stores a virtual machine's disk files within a VMFS datastore that resides on a SAN storage device. When virtual machine guest operating systems issue SCSI commands to their virtual disks, the SCSI virtualization

layer translates these commands to VMFS file operations.

When a virtual machine interacts with its virtual disk stored on a SAN, the following process takes place:

1 When the guest operating system in a virtual machine reads or writes to a SCSI disk, it issues SCSI commands to the virtual disk.





256b%2522%2520%2522%256e%2565%2574%2577%256f%2572%256b%2522%2520%2522%2541%2564%2561%2570%2574%2565%2572%2522%2520%2522%2561%2564%2561%2570%2574%2522%2520

### QUESTION 15

ACME Tools has a vSphere 5.x deployment with an older iSCSI storage array. The administrator is considering adding an additional array which will include support for the vStorage APIs for Array Integration (VAAI). Which two tasks would be completed in a reduced period of time if the new array was added? (Choose two.)

- A. creating VMFS datastores on the new array
- B. creating fault tolerant virtual machines on the new array
- C. migrating virtual machines using Storage vMotion between the arrays
- D. writes to thin provisioned virtual disks on the new array

**Correct Answer:** BD

**Section:** Shared Storage

**Explanation**

**Explanation/Reference:**

[http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=1021976](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1021976)

"Creating fault tolerant virtual machines on the new array" is correct because VAAI uses this fundamental operation: Clone Blocks/Full Copy/XCOPY, which is used to copy or migrate data within the same physical array.

"writes to thin provisioned virtual disks on the new array" is correct because VAAI uses this fundamental operation: Thin Provisioning in ESXi 5.x and later hosts, which allows the ESXi host to tell the array when the space previously occupied by a virtual machine (whether it be deleted or migrated to another datastore) can be reclaimed on thin provisioned LUNs.

### QUESTION 16

Where must the VMware vSphere Storage Appliance Manager (VSA Manager) be installed?

- A. On a Windows virtual machine created on the first VSA host
- B. The VSA Manager is deployed as a separate virtual appliance
- C. On a vCenter Server outside of the VSA environment
- D. It is pre-installed on the VMware vSphere Storage Appliance

**Correct Answer:** C

**Section:** VSA

**Explanation**

**Explanation/Reference:**

### QUESTION 17

A virtual machine requires a 4TB disk for application data. The storage administrator has already created and presented a 4TB LUN to an ESXi 5.x host. The host is currently configured with a single 500GB VMFS5 datastore. What is the next step the vSphere administrator must use to provision the data disk?

- A. Create a virtual compatibility mode RDM mapping to the 4TB LUN.
- B. Create a physical compatibility mode RDM mapping to the 4TB LUN.
- C. Expand the existing VMFS volume to 4TB. Create a physical compatibility mode RDM mapping to the 4TB LUN.
- D. Expand the existing VMFS volume to 4TB. Create a virtual compatibility mode RDM mapping to the 4TB LUN.

LUN.

**Correct Answer: B**

**Section: Shared Storage**

**Explanation**

**Explanation/Reference:**

You can use RDMs in virtual compatibility or physical compatibility modes. Virtual mode specifies full virtualization of the mapped device. Physical mode specifies minimal SCSI virtualization of the mapped device, allowing the greatest flexibility for SAN management software.

In virtual mode, the VMkernel sends only READ and WRITE to the mapped device. The mapped device appears to the guest operating system exactly the same as a virtual disk file in a VMFS volume. The real hardware characteristics are hidden. If you are using a raw disk in virtual mode, you can realize the benefits of VMFS such as advanced file locking for data protection and snapshots for streamlining development processes. Virtual mode is also more portable across storage hardware than physical mode, presenting the same behavior as a virtual disk file.

In physical mode, the VMkernel passes all SCSI commands to the device, with one exception: the REPORT LUNs command is virtualized so that the VMkernel can isolate the LUN to the owning virtual machine. Otherwise, all physical characteristics of the underlying hardware are exposed. Physical mode is useful to run SAN management agents or other SCSI target-based software in the virtual machine. Physical mode also allows virtual-to-physical clustering for cost-effective high availability.

**VMFS5 supports greater than 2TB disk size for RDMs in physical compatibility mode only.** The following restrictions apply:

You cannot relocate larger than 2TB RDMs to datastores other than VMFS5.

You cannot convert larger than 2TB RDMs to virtual disks, or perform other operations that involve RDM to virtual disk conversion. Such operations include cloning.

[http://pubs.vmware.com/vsphere-50/index.jsp?topic=%2Fcom.vmware.vsphere.storage.doc\\_50%2FGUID-4B2479B1-541D-4FF4-865E-2EE711294478.html](http://pubs.vmware.com/vsphere-50/index.jsp?topic=%2Fcom.vmware.vsphere.storage.doc_50%2FGUID-4B2479B1-541D-4FF4-865E-2EE711294478.html)

#### **QUESTION 18**

A VMFS3 datastore has just been upgraded to VMFS5.  
In what two ways does this affect the datastore? (Choose two.)

- A. The existing VMFS3 block size is retained.
- B. The block size will be changed to 8MB.
- C. Any existing VMDK can be expanded up to 2TB.
- D. VMDKs retain their size limit from the VMFS3 block size.

**Correct Answer: AC**

**Section: Datastores**

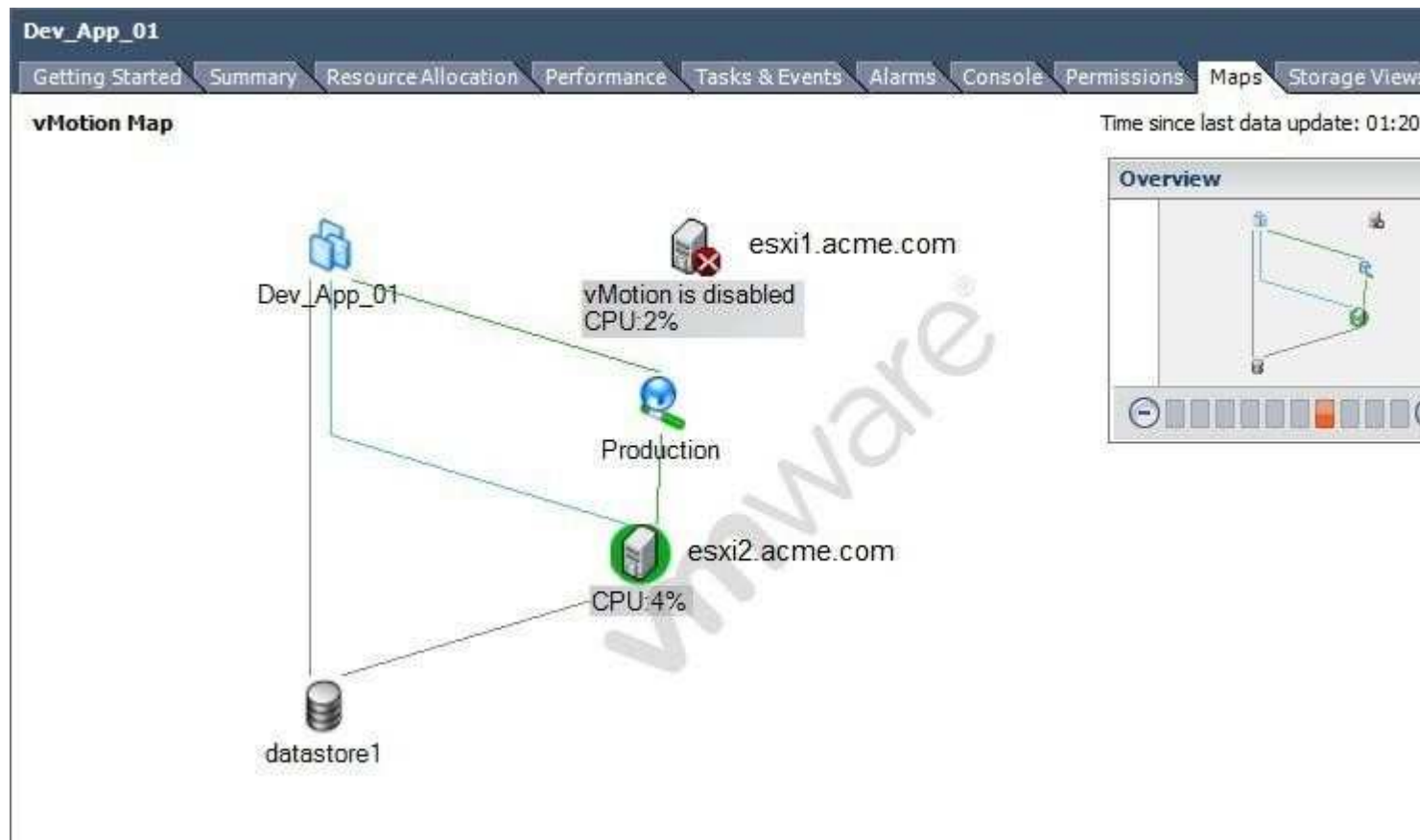
**Explanation**

**Explanation/Reference:**

If you upgrade to VMFS-5 from VMFS-3 then regardless of the block size, VMFS-5 uses double-indirect addressing to cater for large files (up to a size of 2 TB – 512 B) on upgraded VMFS-3 volumes. For example, if the VMDK goes beyond 512 GB it will switch to using double-indirect addressing, which will allow for VMDKs up to 2 TB – 512 B.

### QUESTION 19

Click the Exhibit button. Based on the exhibit, what is the appropriate action to set a preferred path?



- A. Paths cannot be set to preferred on this array.
- B. Right-click the path you want to prefer and then select Preferred.
- C. Right-click the path you want to prefer then select Active.
- D. Double-click the new path you wish to prefer. The other existing paths will be set to Standby.

**Correct Answer:** A

**Section:** Shared Storage

**Explanation**

**Explanation/Reference:**

### QUESTION 20

What are two consequences of deleting a VMFS datastore from an ESXi 5.x host? (Choose two.)

- A. The datastore is inaccessible from all connected ESXi hosts.
- B. The datastore and all virtual machines are removed from the storage device.
- C. The datastore and all virtual machines remain on the storage device.
- D. The datastore is only removed from that specific ESXi host.

**Correct Answer:** AB

**Section:** Datastores

**Explanation**

**Explanation/Reference:****Delete VMFS Datastores**

You can delete any type of VMFS datastore, including copies that you have mounted without resignaturing. When you delete a datastore, it is destroyed and disappears from all hosts that have access to the datastore.

NOTE The datastore delete operation permanently deletes all files associated with virtual machines on the datastore.

**QUESTION 21**

The Typical option is selected while running the New Virtual Machine Wizard in the vSphere Client. Which three specific configuration options are included during virtual machine creation? (Choose three.)

- A. Datastore location
- B. Virtual machine version
- C. Number of vCPUs
- D. Storage DRS
- E. Virtual disk size

**Correct Answer:** ADE

**Section:** VMs

**Explanation**

**Explanation/Reference:**

**QUESTION 22**

An administrator is creating a virtual machine that will be running Windows 2008 Enterprise (64-bit). The application to be installed in the virtual machine requires eight vCPUs to run effectively. During installation, the only available options are one, two, three, or four vCPUs. What condition explains the available vCPU selections?

- A. The virtual machine hardware version is 8.
- B. The guest operating system for the virtual machine is 64-bit.
- C. The ESXi host has two non hyperthreaded dual-core CPUs.
- D. The ESXi host has two hyperthreaded dual-core CPUs.

**Correct Answer:** C

**Section:** VMs

**Explanation**

**Explanation/Reference:**

Intel processors are powered with hyperthreading which will provide the virtual machine with 8 vCpus since the processor presents 8 logical cores

**QUESTION 23**

The page file for a Windows guest operating system or the swap partition for a Linux guest operating system is created by.

- A. the ESXi host
- B. the guest operating system
- C. vCenter server
- D. the VMFS datastore

**Correct Answer:** B

**Section:** Datastores

**Explanation**

**Explanation/Reference:**

**QUESTION 24**

What is the size of a virtual machine .vswp file?

- A. The virtual machine .vswp file is equal to twice the amount of available memory configured for the virtual machine when it was created.
- B. The virtual machine .vswp file is equal to the amount of virtual memory (virtual machine available memory, plus virtual machine overhead) configured for the virtual machine when it was created.
- C. The virtual machine .vswp file is set to the amount of memory allocated minus any memory reservation.
- D. The virtual machine .vswp file is equal to the amount of available memory in the ESXi server.

**Correct Answer: C**

**Section: Datastores**

**Explanation**

**Explanation/Reference:**

Suppose we created a VM with 3GB vRAM and reserved 5GB vRAM for it. The Swap file will be 5GB-3GB=2GB.

**QUESTION 25**

An administrator is installing a Windows Server 2008 operating system into a virtual machine on an ESXi 5.x host. What are two valid SCSI adaptors for this installation? (Choose two.)

- A. Paravirtual SCSI
- B. LSI Logic SAS
- C. BusLogic SAS
- D. Broadcom SAS

**Correct Answer: AB**

**Section: VMs**

**Explanation**

**Explanation/Reference:**

**QUESTION 26**

The Power and Suspend buttons for a virtual machine can be configured from the Options tab of the virtual machine. What are the two default actions that are configured for these buttons? (Choose two.)

- A. The Suspend button suspends the VM though the guest OS.
- B. The Power button does a graceful shutdown.
- C. The Power button does a hard shutdown.
- D. The Suspend button suspends the VM though ESXi.

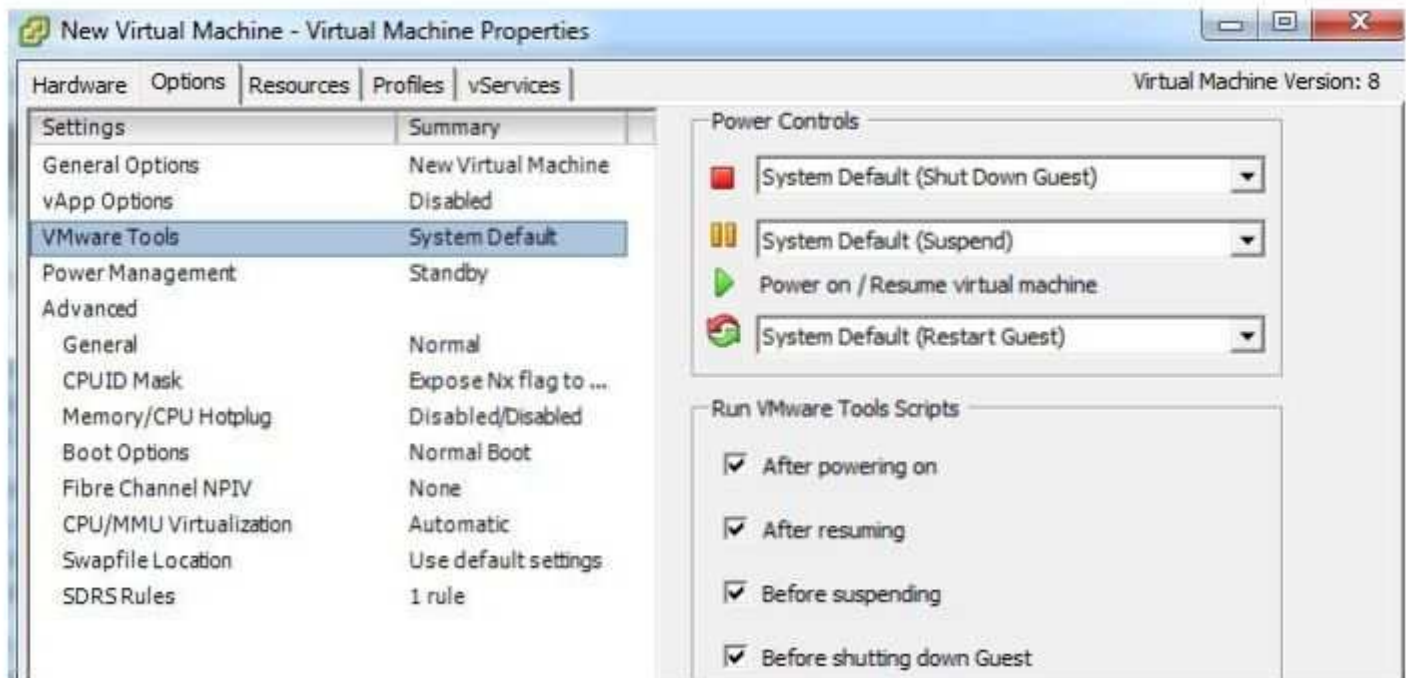
**Correct Answer: BD**

**Section: VMs**

**Explanation**

**Explanation/Reference:**

With the VMWare Tools it will try graceful shutdown or restart if the O/S supports it, otherwise it will be hard.



[http://pubs.vmware.com/vsphere-51/topic/com.vmware.vsphere.vm\\_admin.doc/GUID-62689983-3320-464C-8CAE-AA8B528350D7.html](http://pubs.vmware.com/vsphere-51/topic/com.vmware.vsphere.vm_admin.doc/GUID-62689983-3320-464C-8CAE-AA8B528350D7.html)  
Reply

**QUESTION 27**

Which virtual disk types are supported on a network attached storage appliance using NFS with hardware acceleration disabled?

- A. Flat disk
- B. Raw Device Mappings
- C. Thick Provision Lazy Zeroed
- D. Thin Provision

**Correct Answer: D**  
**Section: Datastores**  
**Explanation**

**Explanation/Reference:**

NFS datastores with Hardware Acceleration and VMFS datastores support the following disk provisioning policies: thick provision lazy/eager and thin.

**On NFS datastores that do not support Hardware Acceleration, only thin format is available.**

## Exam F

### QUESTION 1

A database administrator has requested that a virtual disk attached to a virtual machine running an I/O intensive database application be fully provisioned. The virtual disk was initially thin provisioned. Which two methods would accomplish this task? (Choose two.)

- A. Use Storage vMotion and change the disk type to Flat.
- B. Use the Inflate option in the Datastore Properties.
- C. Use Storage vMotion and change the disk type to Thick Provisioned Lazy Zeroed.
- D. Use Storage vMotion and change the disk type to Thick Provisioned Eager Zeroed.

**Correct Answer:** BD

**Section:** Datastores

**Explanation**

#### **Explanation/Reference:**

As of ESXi 5 you have two choices: Storage vMotion and inflate. When initiating a Storage vMotion you have the option to choose any of the three options below and convert it. Eager zeroed is considered to be the best for intensive I/O applications.

#### Disk Types

**Thick Provision Lazy Zeroed** – Space required for virtual disk is allocated at creation time but the disk is zeroed out on demand when requested by the guest operating system (like a fast format in Windows). Fast creation, fully allocated blocks on datastore, high chance of contiguous file blocks.

**Thick Provision Eager Zeroed** – Space required for virtual disk is allocated at creation time and every sector of the disk is zeroed during disk creation. Slow creation, fully allocated blocks on datastore, highest chance of contiguous file blocks.

**Thin Provision** – Disk only uses as much space as it initially needs. Fastest creation, Allocated and zeroed out on demand, low chance of contiguous file blocks, uses less disk space

You can also turn a thin into thick by finding the flat file using the datastore browser and selecting inflate.

<http://blogs.vmware.com/apps/2011/11/using-virtual-disks-for-business-critical-apps-storage.html>

### QUESTION 2

Which two configuration settings can be modified when using the Typical option in the Create New Virtual Machine wizard? (Choose two.)

- A. Network Adapter type
- B. Datastore on which to place the virtual machine disks
- C. Number of Virtual CPUs
- D. Guest Operating System

**Correct Answer:** BD

**Section:** VMs

**Explanation**

#### **Explanation/Reference:**

Explanation:



### Convert a Virtual Disk from Thin to Thick

If you created a virtual disk in the thin provision format, you can convert it to the thick provision format.

The thin provisioned disk starts small and at first, uses just as much storage space as it needs for its initial operations. After having been converted, the virtual disk grows to its full capacity and occupies the entire datastore space provisioned to it during the disk's creation.

#### Procedure

1. Select the virtual machine in the inventory.
2. Click the **Summary** tab and, under **Resources**, double-click the datastore for the virtual machine to open the Datastore Browser dialog box.
3. Click the virtual machine folder to find the virtual disk file you want to convert. The file has the .vmdk extension.
4. Right-click the virtual disk file and select **Inflate**.

### Migrate a Virtual Machine with Storage vMotion in the vSphere Client

Use migration with Storage vMotion to relocate a virtual machine's configuration file and virtual disks while the virtual machine is powered on.

You cannot change the virtual machine's execution host during a migration with Storage vMotion.

#### Procedure

1. Select the virtual machine that you want to migrate in the inventory.
2. Right-click on the virtual machine and select **Migrate** from the pop-up menu.
3. Select **Change datastore** and click **Next**.
4. Select a disk format.

Option	Description
Same as Source	Use the format of the original virtual disk. If you select this option for an RDM disk in physical compatibility mode, only the mapping file is migrated. If you select this option for an RDM disk in virtual compatibility mode, the RDM is converted to a virtual disk.
Thin provisioned	Use the thin format to save storage space. The thin virtual disk uses just as much storage space as it needs for its initial operations. When the virtual disk requires more space, it can grow in size up to its maximum allocated capacity. This option is not available for RDMs in physical compatibility mode. If you select this option for a virtual compatibility mode RDM, the RDM is converted to a thin virtual disk. RDMs converted to virtual disks cannot be converted back to RDMs.
Thick	Allocate a fixed amount of hard disk space to the virtual disk. The virtual disk in the thick format does not change its size and from the beginning occupies the entire datastore space provisioned to it. This option is not available for RDMs in physical compatibility mode. If you select this option for a virtual compatibility mode RDM, the RDM is converted to a virtual disk. RDMs converted to virtual disks cannot be converted back to RDMs.

"First Test, First Pass" - [www.lead2pass.com](http://www.lead2pass.com) 78

### QUESTION 3

A virtual machine is using a Fibre Channel attached RDM LUN. Which three use cases would necessitate a RDM? (Choose three.)

- A. VMware snapshots
- B. NPIV
- C. Physical server-to-virtual machine clustering
- D. Distributed file locking
- E. SAN management agents

**Correct Answer: BCE**

**Section: Shared Storage**

## **Explanation**

### **Explanation/Reference:**

Fibre Channel: Physical RDM: Physical features.

### **QUESTION 4**

What are two benefits of physical compatibility mode for RDMs, as compared to virtual compatibility mode? (Choose two.)

- A. Allows the use of SAN-aware applications
- B. Allows for cloning
- C. Allows the VM to access SAN hardware directly
- D. Allows for template creation of the related virtual machine

**Correct Answer:** AC

**Section:** Shared Storage

### **Explanation**

### **Explanation/Reference:**

Physical RDM = physical features

Virtual RDM = Vmware features

### **QUESTION 5**

What is the recommended maximum memory value that is displayed when configuring a virtual machine based upon?

- A. The amount of memory in the ESXi host
- B. The threshold needed for the ESXi host to satisfy a reservation value
- C. The maximum value the guest operating system supports
- D. The maximum recommended by the OS manufacturer.

**Correct Answer:** A

**Section:** VMs

### **Explanation**

### **Explanation/Reference:**

### **QUESTION 6**

An administrator has configured a virtual machine using the Emulate IDE mode for the DVD drive. Using the vSphere Client from a remote PC, an administrator wants to connect to a virtual machine and burn a DVD, but is getting error messages in the disk burning application. What must the administrator do to fix this issue?

- A. The administrator must use the host DVD drive.
- B. A DVD cannot be burned from within a virtual machine.
- C. The administrator must change the DVD mode to Passthrough IDE.
- D. The administrator must click the Writer checkbox in the DVD settings.

**Correct Answer:** C

**Section:** VMs

### **Explanation**

### **Explanation/Reference:**

### **QUESTION 7**

What two statements regarding the VSWP file are true? (Choose two.)

- A. The VSWP file is equal to the memory allocation.
- B. The VSWP file size is equal to the memory reservation.
- C. The VSWP file size is equal to the difference between the memory assigned and reservation.
- D. No VSWP file is created if reserved memory to the same value as allocated memory.

**Correct Answer:** CD

**Section:** Datastores

**Explanation**

**Explanation/Reference:**

If you make reservations for your virtual machine's that are equal to the amount of RAM assigned to them, swapping and page sharing does not occur. You can over commit pretty heavily if you are comfortable with poorer performance. If you do not set reservations, ESX host creates a .vswp file equal to the difference between the amount of physical memory assigned to the virtual machine and the reservation it has. By default, memory reservations are set to 0. If you have a virtual machine with 2GB of memory without a reservation, it creates a 2GB .vswp file when it is powered on. The virtual machine starts using the .vswp file if the server is out of physical RAM. If you set a 1GB reservation, it creates a 1GB .vswp file. The .vswp files are what allows for memory over-commitment

**QUESTION 8**

An administrator has discovered a failure that has affected network connectivity on the management network of a vSphere HA cluster. As a result, half of the hosts in the cluster are able to communicate with each other but not the other half. The cluster was configured with default settings. What happens as a result of the failure?

- A. The VMs will be powered off on slave hosts in the cluster.
- B. All VMs and hosts in the cluster are unaffected.
- C. The VMs are unaffected, a second master will be elected.
- D. The VMs will be powered down on all hosts in the cluster.

**Correct Answer:** C

**Section:** Clusters

**Explanation**

**Explanation/Reference:**

**QUESTION 9**

A virtual machine failure occurs in a vSphere HA cluster, but the VM is not restarted. No error messages are given. Which two conditions would explain this behavior? (Choose two.)

- A. Monitoring sensitivity was set to Low.
- B. Application Monitoring Only was selected.
- C. The virtual machine has failed three times.
- D. The HA cluster was set up with all defaults.

**Correct Answer:** CD

**Section:** Clusters

**Explanation**

**Explanation/Reference:**



<http://www.gratisexam.com/>

**QUESTION 10**

Which two vSphere features can be used with virtual machines that are enabled for VMware Fault Tolerance?  
(Choose two.)

- A. EVC
- B. Storage vMotion
- C. RDMS in virtual compatibility mode
- D. VMware Virtual SMP

**Correct Answer:** AC

**Section:** Fault Tolerance

**Explanation**

**Explanation/Reference:**

**QUESTION 11**

ACME Anvil Incorporated has several departments which each have unique resource requirements in their environment:

1. The Manufacturing department has ten production virtual machines.
2. The Development department has two test/dev virtual machines.
3. The Manufacturing virtual machines have only CPU reservations.
4. No Development virtual machine should be able to use more resources than any Manufacturing virtual machine requests.
5. Manufacturing department virtual machines must always be able to power on.

Resource Pools will be used to address these requirements. When creating the "Manufacturing" and "Development" pools, which settings should be part of the configuration to meet the stated requirements?  
(Choose two.)

- A. Enable Expandable Reservation on Memory Resources on the Manufacturing pool
- B. Set a reservation for CPU Resources on the Manufacturing resource pool
- C. Create a required Group Rule to ensure Development virtual machines always run on the Development host
- D. Ensure the shares set on the Manufacturing pool are at least five times the shares set on the Development pool

**Correct Answer:** BD

**Section:** Resource Pools

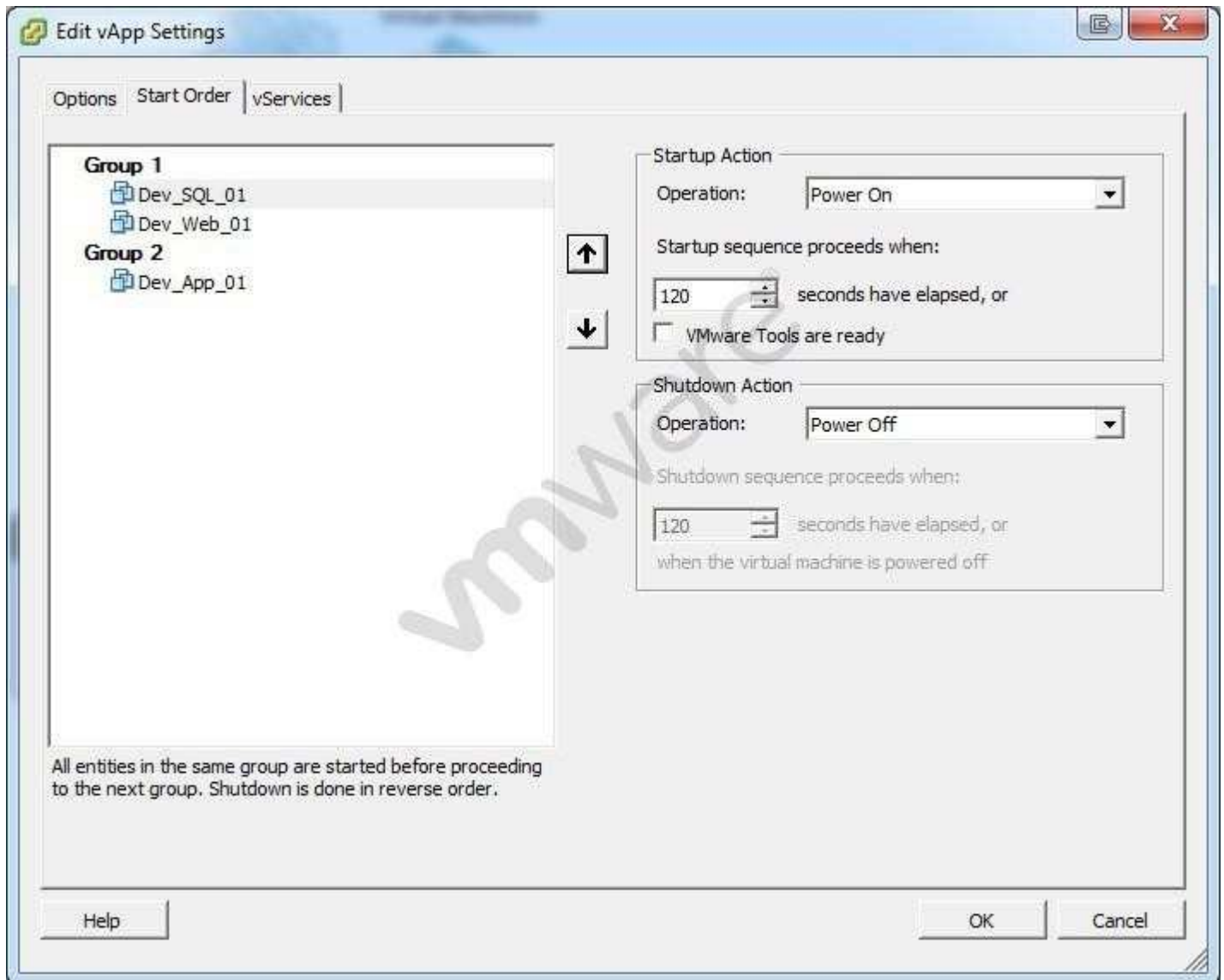
**Explanation**

**Explanation/Reference:**

**QUESTION 12**

Click the Exhibit button. An administrator is creating a vApp for a multi-tiered web application. The vApp has been configured as shown in the exhibit. Testing of the vApp indicates that attempts to communicate with the web server on Dev\_Web\_01 fail. The developer wants to be sure the database server OS is completely started

before the other servers power on. The developer also wants to minimize recovery time. What changes to the vApp configuration will correct the issues?



- A. Move the Dev\_Web\_01 virtual machine to Group 3 and increase the time value
- B. Move the Dev\_App\_01 virtual machine to Group 1 and increase the time value
- C. Move the Dev\_Web\_01 virtual machine to Group 3, decrease the time value and check VMware Tools are ready
- D. Move the Dev\_Web\_01 virtual machine to Group 3, increase the time value and check VMware Tools are ready

**Correct Answer:** D

**Section:** vApps

**Explanation**

**Explanation/Reference:**

### QUESTION 13

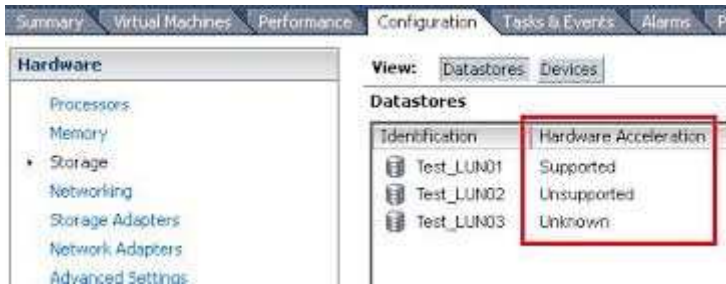
How can you verify vStorage APIs for Array Integration (VAAI) is enabled?

- A. "VAAI" listed on the Hard Disk properties page for any VMDK stored on a compliant array
- B. "Hardware Acceleration" listed on the Hard Disk properties page for any VMDK stored on a compliant array
- C. "VAAI" column for any datastore created on a compliant array
- D. "Hardware Acceleration" column for any datastore created on a compliant array

**Correct Answer:** D  
**Section:** Datastores  
**Explanation**

**Explanation/Reference:**

If you go to Host > Configuration > Storage, you can see the Hardware Acceleration Status in the panel on the right side. For each storage device and datastore, the vSphere Client displays the hardware acceleration support status in the Hardware Acceleration column of the Devices view and the Datastores view.



Reference:  
[http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=1021976](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1021976)

**QUESTION 14**

How is the page file for a Windows guest operating system or the swap partition for a Linux guest operating system created?

- A. By the ESXi host
- B. By the guest operating system
- C. By the vCenter server
- D. By the vCenter cluster

**Correct Answer:** B  
**Section:** VMs  
**Explanation**

**Explanation/Reference:**

**QUESTION 15**

Which two solutions require Raw Device Mapping using virtual compatibility mode? (Choose two.)

- A. Array-based snapshots
- B. Virtual machine snapshots
- C. Move the data using Storage vMotion
- D. SAN management agents

**Correct Answer:** BC  
**Section:** Datastores  
**Explanation**

**Explanation/Reference:**

Virtual mode: virtual stuff. No physical or array features supported.

**QUESTION 16**

To prevent non-ESXi hosts from seeing VMFS datastores, which would be the most efficient place to configure LUN masking?

- A. On the ESXi host
- B. On the SAN Storage Device
- C. On the non-ESXi hosts
- D. On the Fibre Channel Switch

**Correct Answer: B**

**Section: Datastores**

**Explanation**

**Explanation/Reference:**

Zoning and Lun Masking are often confused for each other, probably because both of them are used to restrict access to storage. If you want to specify only certain hosts from accessing a storage device then you would want to setup zoning. **Once the zoning is done, we can further lock down access to the storage by setting up LUN (Logical Unit Number) Masking on the storage device.**

<http://theithollow.com/2012/03/lun-masking-vs-zoning/>

**QUESTION 17**

A storage array containing a VMFS datastore must be taken offline for maintenance. What can be done to avoid virtual machine downtime on VMs running in this datastore?

- A. Clone the virtual machines to a VMFS datastore on a different storage array.
- B. Use Site Recovery Manager to failover the virtual machines on the storage array to the recovery site.
- C. Use vSphere HA to failover the virtual machines to ESX Servers attached to a different storage array.
- D. Use Storage VMotion to migrate the virtual machines to a VMFS datastore on a different storage array.

**Correct Answer: D**

**Section: Datastores**

**Explanation**

**Explanation/Reference:****QUESTION 18**

An administrator is configuring a vNetwork Standard Switch for load balancing. The physical network is configured for switch-assisted load balancing using EtherChannel. Which load- balancing policy must be used to support this configuration?

- A. Route based on source MAC hash
- B. Route based on IP hash
- C. Route based on the originating port ID
- D. Route using Round-Robin

**Correct Answer: B**

**Section: Standard Switches**

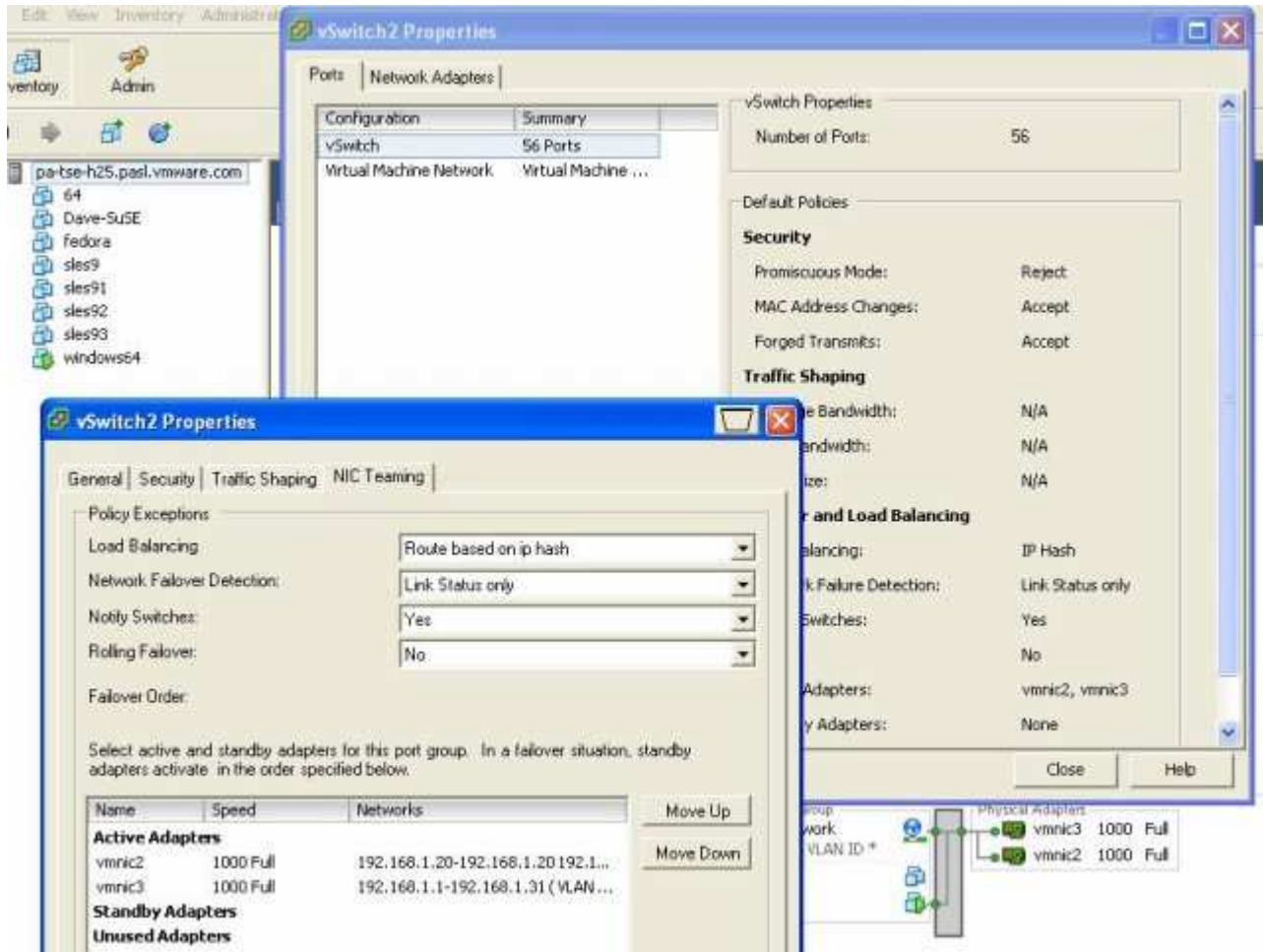
**Explanation**

**Explanation/Reference:**

<http://kb.vmware.com/selfservice/microsites/search.do?>

language=en\_US&cmd=displayKC&externalId=1004048

Note: The only load balancing option for vSwitches or vDistributed Switches that can be used with EtherChannel is IP HASH.



### QUESTION 19

Which two conditions will cause a vMotion validation check to fail? (Choose two.)

- A. An active connection that matches an existing port group label on the target host
- B. Insufficient network bandwidth on the target virtual switch
- C. Different security policies on the target virtual switch
- D. An active connection to an internal virtual switch

**Correct Answer:** CD

**Section:** Standard Switches

**Explanation**

**Explanation/Reference:**

### QUESTION 20

You are running into disk contention problems on a VMFS datastore. Which two actions will resolve this problem? (Choose two.)

- A. Adjust disk shares for all virtual machines accessing this datastore from the same ESXi host



- B. Move some of the virtual machines from this VMFS datastore to another datastore on a different LUN
- C. Adjust disk shares for each ESXi host accessing this datastore.
- D. Move some of the virtual machines from this VMFS datastore to another datastore on the same LUN.

**Correct Answer:** AB

**Section:** Datastores

**Explanation**

**Explanation/Reference:**

Disk shares are set at the virtual machine level and can be used to prioritize access to the datastore. However, if contention is severe enough some virtual machines may need to be moved to an alternate datastore. Move some of the virtual machines from this VMFS datastore to another datastore on a different LUN.

#### **QUESTION 21**

Which CHAP authentication mechanisms are only available when using software and dependent hardware iSCSI adapters (Choose Two)?

- A. Mutual CHAP
- B. Per-subnet CHAP
- C. Per-target CHAP
- D. One-way CHAP

**Correct Answer:** AC

**Section:** Shared Storage

**Explanation**

**Explanation/Reference:**

From [http://pubs.vmware.com/vsphere-50/index.jsp?topic=/com.vmware.vsphere.storage.doc\\_50/GUID-3F97FB05-3C92-4040-84E7-D928555B3808.html](http://pubs.vmware.com/vsphere-50/index.jsp?topic=/com.vmware.vsphere.storage.doc_50/GUID-3F97FB05-3C92-4040-84E7-D928555B3808.html)

ESXi supports the following CHAP authentication methods:

One-way CHAP

In one-way CHAP authentication, also called unidirectional, the target authenticates the initiator, but the initiator does not authenticate the target.

Mutual CHAP

In mutual CHAP authentication, also called bidirectional, an additional level of security enables the initiator to authenticate the target. VMware supports this method for software and dependent hardware iSCSI adapters only.

#### **QUESTION 22**

Which feature allows a running virtual machine to be moved from one ESXi host to another without interruption?

- A. Storage VMotion
- B. HA
- C. Cold Migration
- D. VMotion

**Correct Answer:** D

**Section:** Clusters

**Explanation**

**Explanation/Reference:**

**QUESTION 23**

When is the page file for a Windows guest operating system or the swap partition for a Linux guest operating system created?

- A. When the guest operating system is installed on the virtual machine
- B. When a reservation is set for the virtual machine
- C. When the virtual machine is created
- D. When the virtual machine is first powered on

**Correct Answer:** A

**Section:** VMs

**Explanation**

**Explanation/Reference:**

**QUESTION 24**

When defining a NIC team (bond) on an vNetwork Standard Switch, it is possible to designate some of the physical NICs that make up the bond as "standby" NICs. Which statement most accurately describes the purpose of a standby NIC?

- A. Used to implement traffic shaping for the rest of the team.
- B. Used only in the case of the failure of other NICs in the team.
- C. Not used as part of the team until activated by the administrator.
- D. Used only when network traffic exceeds the capacity of the rest of the team.

**Correct Answer:** B

**Section:** Standard Switches

**Explanation**

**Explanation/Reference:**

**QUESTION 25**

An ESXi host is configured to access an iSCSI target using CHAP authentication. What happens to the access if CHAP is disabled on the ESXi host?

- A. Access is unaffected until the CHAP is disabled at the iSCSI target
- B. Access is immediately removed
- C. Access is unaffected until either the ESXi host or the iSCSI Array are restarted
- D. Access is removed on the next rescan

**Correct Answer:** A

**Section:** Shared Storage

**Explanation**

**Explanation/Reference:**

**iSCSI SAN Configuration Guide, page 40.**

If you disable CHAP on a system that requires CHAP authentication, existing iSCSI sessions remain active until you reboot your ESX/ESXi host or the storage system forces a logout. After the session ends, you can no longer connect to targets that require CHAP.

**QUESTION 26**

An administrator finds that the Hardware Status tab is unavailable when an ESXi host is selected in vCenter Server. Which two steps could be taken to investigate the issue? (Choose two.)

- A. Check the status of the CIM Data Feed in vCenter Service Status
- B. Check the status of the vCenter Hardware Service in the Windows Services applet
- C. Check the status of the vCenter Hardware Service in the Plug-in Manager
- D. Check the status of the CIM Data Feed on the ESXi host

**Correct Answer:** AC

**Section:** vCenter

**Explanation**

**Explanation/Reference:**

Hardware health information for ESX Hosts is provided in vCenter Server using the vCenter Hardware Service. This service does not show up in the Windows Services applet, but the status can be checked in the Plug-in Manager. The service relies on a CIM Data Feed from the ESX Host, the status of which can be checked in vCenter Service Status.

**QUESTION 27**

What protocol is used by an ESXi host to communicate with NAS devices?

- A. iSCSI
- B. CIFS
- C. NFS
- D. SMB

**Correct Answer:** C

**Section:** Shared Storage

**Explanation**

**Explanation/Reference:**

Many NAS devices support CIFS, SMB and NFS for file shares. However, NFS is the only supported protocol for ESX.

**QUESTION 28**

An administrator is configuring iSCSI for use with a vSphere environment. Which networking feature should be configured on the ESXi host to improve iSCSI performance?

- A. Jumbo Frames
- B. NetQueue
- C. EtherChannel
- D. PortFast

**Correct Answer:** A

**Section:** Shared Storage

**Explanation**

**Explanation/Reference:**

- **Jumbo Frames** can be used on a VMkernel port to allow for larger data payloads in fewer packets. Jumbo Frames can provide improved performance for IP-based storage and should be enabled when configuring an ESX Host for iSCSI. Jumbo Frames can be used on a VMkernel port to allow for larger data payloads in fewer packets.
- EtherChannel is a Cisco feature that is used for switch-assisted load balancing. As such it is configured on the physical switch and is not an option that is configured on an ESX Host.
- NetQueue can be configured on an ESX Host to take advantage of multiple receive queues to improve receive-side networking performance. It is enabled by default and does not require configuration.
- PortFast is a Cisco feature that is used with Spanning Tree Protocol (STP). As such it is configured on the physical switch.

**QUESTION 29**

What is the maximum number of VMkernel swap files that an ESXi host can have on a single VMFS volume?

- A. 1
- B. VMkernel swap files must be stored locally on the ESXi host
- C. 1 per virtual machine
- D. 1 per virtual disk

**Correct Answer: C**

**Section: Datastores**

**Explanation**

**Explanation/Reference:**

Configuration Maximums VMware vSphere 4.0 and vSphere 4.0 Update 1, page 5.

Memory Maximums

Table 4. Memory Maximums

Item Maximum

Swap files 1 per virtual machine

**QUESTION 30**

An administrator would like to set up Host Profiles in a vSphere architecture. Using the vSphere Client, the administrator connects to vCenter Server and navigates to Management, then begins to build a new Host Profile but is unable to save the profile. Why is the administrator unable to save the completed profile?

- A. The administrator does not have the proper vSphere edition so this feature is not licensed
- B. The Host Profiles service is stopped and must be restarted to access this option
- C. No ESXi hosts have been added to vCenter Server, and this option will not be available until at least one host is managed
- D. No DRS/HA Cluster has been defined, and Host Profiles must be applied to a cluster.

**Correct Answer: C**

**Section: Troubleshoot Hosts**

**Explanation**

**Explanation/Reference:**

[http://pubs.vmware.com/vsphere-50/index.jsp?topic=/com.vmware.vsphere.upgrade.doc\\_50/GUID-DD8C6FF2-1949-4C82-A4BA-578988CA7BA1.html](http://pubs.vmware.com/vsphere-50/index.jsp?topic=/com.vmware.vsphere.upgrade.doc_50/GUID-DD8C6FF2-1949-4C82-A4BA-578988CA7BA1.html)

Create a Host Profile from Host Profiles View

You can create a host profile from the Host Profiles main view using the configuration of an existing host.

Prerequisites

You must have a vSphere installation and at least one properly configured host in the inventory.

## Exam G

### QUESTION 1

At which two levels can blocking policies be applied on a vNetwork Distributed Switch? (Choose two.)

- A. Virtual Adapter
- B. dvUplink
- C. dvPort Group
- D. Physical Adapter

**Correct Answer:** BC

**Section:** Distributed Switches

**Explanation**

#### Explanation/Reference:

Port blocking policies can only be applied to a vNetwork Distributed Switch. They can be applied to dvPorts/ dvPort Groups and to dvUplinks/ dvUplink Groups

<http://pubs.vmware.com/vsphere-51/topic/com.vmware.ICbase/PDF/vsphere-esxi-vcenter-server-51-networking-guide.pdf>

### QUESTION 2

A company has been utilizing templates in its environment. It is running a 10-node ESXi 5.x Cluster and DRS has not been configured. Several virtual machines have been deployed from this template and successfully powered on, but a newly deployed virtual machine will not power on. There appears to be adequate CPU and Memory resources available on the host. Which three things can be done to allow more virtual machines to be deployed into the cluster from this template? (Choose three.)

- A. Deploy the virtual machine to a different host using the same datastore
- B. Enable DRS on the cluster to balance the virtual load out across hosts
- C. Increase the virtual machine memory reservation
- D. Move the swap file to a different location
- E. Select a different datastore for the virtual machine

**Correct Answer:** CDE

**Section:** Clones and Templates

**Explanation**

#### Explanation/Reference:

If you make reservations for your virtual machine's that are equal to the amount of RAM assigned to them, swapping and page sharing does not occur. You can over commit pretty heavily if you are comfortable with poorer performance. If you do not set reservations, ESX host creates a .vswp file equal to the difference between the amount of physical memory assigned to the virtual machine and the reservation it has. By default, memory reservations are set to 0. If you have a virtual machine with 2GB of memory without a reservation, it creates a 2GB .vswp file when it is powered on. The virtual machine starts using the .vswp file if the server is out of physical RAM. If you set a 1GB reservation, it creates a 1GB .vswp file. The .vswp files are what allows for memory overcommitment.

### QUESTION 3

Which three Path Selection Policies are supported by default in vSphere? (Choose three.)

- A. MRU (Most recently used)
- B. Round Robin
- C. Fixed

- D. Least I/O
- E. Least Busy

**Correct Answer:** ABC  
**Section:** Switch Policies  
**Explanation**

**Explanation/Reference:**

#### **QUESTION 4**

You have a Windows 2003 Server virtual machine (VM) that is experiencing performance problems. Task Manager displays the following information:

CPU Usage: 85%  
Memory Available: 3 GB  
Network Utilization: 25%  
Center Server displays this additional information:  
ESXi host CPU Utilization: 60%  
VMkernel Swap Activity: None  
Average Network Usage: 900 Mbps

What is the most likely cause for the performance problems?

- A. The VM is CPU constrained.
- B. The ESXi host is CPU constrained.
- C. The ESXi host NIC is being over utilized.
- D. The ESXi host needs more memory installed.

**Correct Answer:** C  
**Section:** Troubleshoot Hosts  
**Explanation**

**Explanation/Reference:**  
Perhaps you only have one 1Gbps NIC?

#### **QUESTION 5**

An administrator finds that an ESXi host cannot be managed by vCenter Server. Which three logs can be reviewed using the DCUI? (Choose three.)

- A. The ESXi shell logs
- B. The HA agent logs
- C. The management agent log
- D. The vmkernel log
- E. The VMware ESXi Observation log

**Correct Answer:** CDE  
**Section:** ESXi  
**Explanation**

**Explanation/Reference:**  
**Log view options**

- 1 Syslog
- 2 vmKernel
- 3. Config

- 4 Management Agent (hostd)
- 5 VirtualCenter Agent (VPXA)
- 6 VMware ESXi Observation log (vobd)

#### QUESTION 6

Which two actions have no effect on the amount of physical memory resources used for virtualization overhead? (Choose two.)

- A. Installing a 64-bit versus 32-bit operating system.
- B. Increasing the amount of RAM in the virtual machine.
- C. Increasing the number of virtual CPUs in the virtual machine.
- D. Increasing the memory shares for the virtual machine.

**Correct Answer:** AD

**Section:** ESXi

**Explanation**

#### Explanation/Reference:

Increasing the number of virtual CPUs in the virtual machine.

Explanation: Increasing the number of virtual CPUs in the virtual machine will increase the overhead for the virtual machine. Adjusting memory share values affects priority access to resources when contention exists, but does not increase or decrease a virtual machine's overhead. Operating System architecture affected memory overhead in earlier generations of ESX, but does not impact overhead in vSphere 4.x

#### QUESTION 7

An administrator is setting up vMotion in a vSphere environment. A migration is run to test the configuration, but fails. On which vSphere component does vMotion need to be enabled?

- A. vCenter Server
- B. Virtual Machine port group
- C. VMkernel port group
- D. vNetwork Standard Switch

**Correct Answer:** C

**Section:** Clusters

**Explanation**

#### Explanation/Reference:

#### QUESTION 8

An administrator views the Fault Tolerance pane of the Summary tab of a virtual machine and finds that the current status is Not Protected. What are two vSphere Fault Tolerance states that would cause the virtual machine to not be protected? (Choose two.)

- A. Stopped - Fault Tolerance has been stopped on the secondary virtual machine.
- B. Need Secondary VM - The primary virtual machine is running without a secondary virtual machine and is not protected
- C. Need Primary VM - The secondary virtual machine is running, and a new primary virtual machine cannot be generated.
- D. Disabled - Fault Tolerance is disabled.

**Correct Answer:** BD

**Section:** Fault Tolerance

**Explanation**

**Explanation/Reference:**

Reason for Not Protected Status	Description
Starting	Fault Tolerance is in the process of starting the Secondary VM. This message is only visible for a short period of time.
Need Secondary VM [C above]	The Primary VM is running without a Secondary VM, so the Primary VM is currently not protected. This generally occurs when there is no compatible host in the cluster available for the Secondary VM. Correct this by bringing a compatible host online. If there is a compatible host online in the cluster, further investigation might be required. Under certain circumstances, disabling Fault Tolerance and then re-enabling it corrects this problem.
Disabled [A above]	Fault Tolerance is currently disabled (no Secondary VM is running). This happens when Fault Tolerance is disabled by the user or when vCenter Server disables Fault Tolerance after being unable to power on the Secondary VM.
VM not Running	Fault Tolerance is enabled but the virtual machine is powered off. Power on the virtual machine to reach Protected state.

Table 3-2. Reasons for Primary VM Not Protected Status Part 3: Create and Configure Resource

**QUESTION 9**

An administrator is editing the IP allocation policy for a vApp. Which three options are available? (Choose three.)

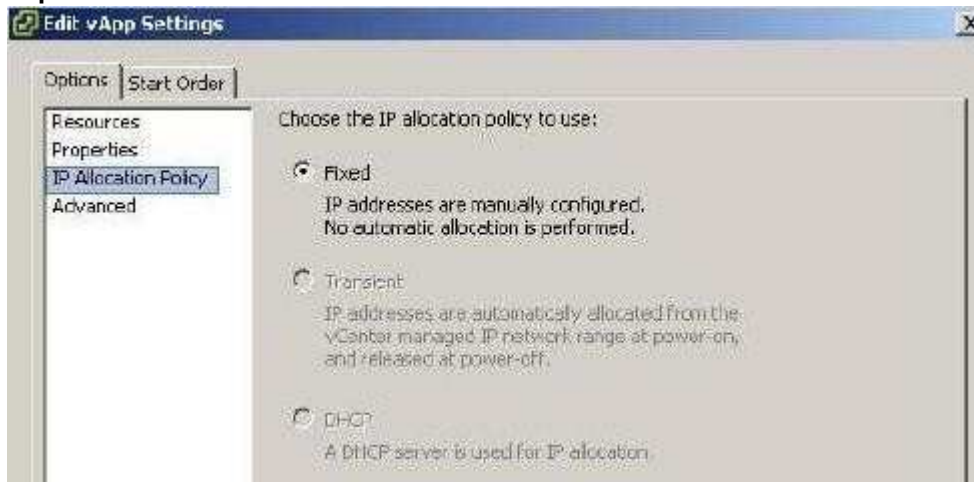
- A. Automatic
- B. Roaming
- C. Transient
- D. DHCP
- E. Fixed

**Correct Answer:** CDE

**Section:** vApps

**Explanation**

**Explanation/Reference:**



**QUESTION 10**

What are three valid objects to place in a vApp? (Choose three.)

- A. Folders
- B. Hosts
- C. Resource pools
- D. vApps



## E. Virtual machines

**Correct Answer:** CDE

**Section:** vApps

**Explanation**

**Explanation/Reference:**

### Create an Object Inside the vApp in the vSphere Client

Within a vApp, you can create a new virtual machine, resource pool, or another vApp.

#### Procedure

- 1 In the inventory, select the vApp in which you want to create the object machine.
- 2 Select the menu option to create a specific object.

Menu Option	Description
Inventory > vApp > New Virtual Machine	Creates a new virtual machine inside the vApp. Complete the Create New Virtual Machine wizard. See Creating a Virtual Machine in the vSphere Client for instructions on creating a new virtual machine.
Inventory > vApp > New Resource Pool	Adds a resource pool inside the vApp. Complete the Create Resource Pool window.
Inventory > vApp > New vApp	Creates a new vApp inside the currently selected vApp. Complete the New vApp wizard. See Create a vApp in the vSphere Client for instructions on creating a new vApp.

"First Test, First Pass" - [www.lead2pass.com](http://www.lead2pass.com) 98

[http://pubs.vmware.com/vsphere50/index.jsp?topic=/com.vmware.vsphere.vcenterhost.doc\\_50/GUID-3B5AF2B1-C534-4426-B97A-D14019A8010F.html](http://pubs.vmware.com/vsphere50/index.jsp?topic=/com.vmware.vsphere.vcenterhost.doc_50/GUID-3B5AF2B1-C534-4426-B97A-D14019A8010F.html)

#### QUESTION 11

Which three Storage I/O Control conditions might trigger the Non-VI workload detected on the datastore alarm? (Choose three.)

- A. The datastore is connected to an ESX/ESXi 4.0 host that does not support Storage I/O Control.
- B. The datastore is on an array that is performing system tasks such as replication.
- C. The datastore is utilizing active/passive multipathing or NMP (Native Multi-Pathing).
- D. The datastore is storing virtual machines with one or more snapshots.
- E. The datastore is connected to an ESX/ESXi 4.0 host that is not managed by vCenter.

**Correct Answer:** ABE

**Section:** Shared Storage

**Explanation**

**Explanation/Reference:**

<http://kb.vmware.com/kb/1020651>

...

\* One or more hosts accessing the datastore are running an ESX version older than 4.1.

\* One or more hosts accessing the datastore are not managed by vCenter Server.

- \* Not all of the hosts accessing the datastore are managed by the same vCenter Server.
- \* The storage media (spindles, SSD) where this datastore is located are shared with other datastores that are not SIOC enabled.
- \* Datastores in the configuration have multiple extents.

[http://pubs.vmware.com/vsphere-50/topic/com.vmware.vsphere.troubleshooting.doc\\_50/GUID-38F95285-DB4F-462F-AFD7-0F4D812B085F.html](http://pubs.vmware.com/vsphere-50/topic/com.vmware.vsphere.troubleshooting.doc_50/GUID-38F95285-DB4F-462F-AFD7-0F4D812B085F.html)

or

Page 39 on vsphere-esxi-vcenter-server-50-troubleshooting-guide.pdf

#### Unsupported Host Connected to Datastore

In the vSphere Client, an alarm is triggered when vCenter Server detects that a workload from a host might be affecting performance.

#### Problem

The alarm Pre-4.1 host connected to SIOC-enabled datastore is triggered.

#### Cause

The datastore is Storage I/O Control-enabled, but it cannot be fully controlled by Storage I/O Control because of the external workload.

This condition can occur if the Storage I/O Control-enabled datastore is connected to a host that does not support Storage I/O Control.

#### Solution

Ensure that all hosts that are connected to the datastore support Storage I/O Control.

### QUESTION 12

Which two conditions will prevent a virtual machine from being successfully migrated using Storage vMotion? (Choose two.)

- A. The virtual machine has an RDM.
- B. The virtual machine has Fault Tolerance enabled.
- C. The virtual machine is running on a vSphere 5.x Standard host.
- D. The virtual machine has a disk stored on an NFS datastore.

**Correct Answer:** BC

**Section:** Clusters

**Explanation**

**Explanation/Reference:**

### QUESTION 13

Which two conditions must exist on all hosts in the cluster if Enhanced vMotion Compatibility (EVC) is used? (Choose two.)

- A. The cluster must be enabled for DRS.
- B. All hosts in the cluster must be running ESX/ESXi 3.5 Update 2 or later.
- C. All hosts in the cluster must have hardware virtualization support enabled.
- D. The cluster must be enabled for HA.

**Correct Answer:** BC

**Section:** Clusters

**Explanation**

**Explanation/Reference:**

EVC Requirements

Hosts in an EVC cluster must meet certain requirements. To enable EVC on a cluster, the cluster must meet the following requirements:

- \* All virtual machines in the cluster that are running on hosts with a feature set greater than the EVC mode you

intend to enable must be powered off or migrated out of the cluster before EVC is enabled.

- \* All hosts in the cluster must have CPUs from a single vendor, either AMD or Intel.
- \* All hosts in the cluster must be running ESX/ESXi 3.5 Update 2 or later.
- \* All hosts in the cluster must be connected to the vCenter Server system.
- \* All hosts in the cluster must have advanced CPU features, such as hardware virtualization support (AMD-V or Intel VT) and AMD No eXecute (NX) or Intel eXecute Disable (XD), enabled in the BIOS if they are available.
- \* All hosts in the cluster should be configured for vMotion. See Host Configuration for vMotion.
- \* All hosts in the cluster must have supported CPUs for the EVC mode you want to enable. Processors Supported in EVC Clusters lists the processor families supported for each EVC mode. To check EVC support for a specific processor or server model, see the VMware Compatibility Guide at <http://www.vmware.com/resources/compatibility/search.php>

Any host added to an existing EVC-enabled cluster must also meet the requirements

Source: [http://pubs.vmware.com/vsphere-50/index.jsp?topic=/com.vmware.vsphere.vcenterhost.doc\\_50/GUID-3B5AF2B1-C534-4426-B97A-D14019A8010F.html](http://pubs.vmware.com/vsphere-50/index.jsp?topic=/com.vmware.vsphere.vcenterhost.doc_50/GUID-3B5AF2B1-C534-4426-B97A-D14019A8010F.html)

#### QUESTION 14

Which conditions are true regarding an ESXi 5.x host placed into maintenance mode while a member of a DRS cluster? (Choose two.)

- A. If the DRS cluster is in partially automated mode and vMotion is configured, its virtual machines will be moved automatically to other hosts in the cluster.
- B. If the DRS cluster is in fully automated mode and vMotion is configured, its virtual machines will be moved automatically to other hosts in the cluster.
- C. If the DRS cluster is in partially automated mode and vMotion is configured, its virtual machines that have a high restart priority will be migrated to other hosts in the cluster.
- D. All the virtual machines on the host must be migrated or powered off before the ESXi host will complete entering maintenance mode.

**Correct Answer:** BD

**Section:** Clusters

**Explanation**

**Explanation/Reference:**

#### QUESTION 15

When creating a dvPort group, which port binding option assigns a port to a virtual machine when the virtual machine is first powered on?

- A. Static binding
- B. Flexible
- C. Ephemeral
- D. Dynamic binding

**Correct Answer:** D

**Section:** Distributed Switches

**Explanation**

**Explanation/Reference:**

<http://pubs.vmware.com/vsphere-51/topic/com.vmware.vsphere.vcenterhost.doc/GUID-6A9312BE-B469-48DE-849B-FFBC4F187218.html>

Select Dynamic binding to assign a port to a virtual machine the FIRST time the virtual machine powers on after it is connected to the distributed port group. Dynamic binding is deprecated in ESXi 5.x.



<http://www.gratisexam.com/>