



**Exam : 070-290**

**Title : Managing and Maintaining a Microsoft  
Windows Server 2003 Environment** □ □

**QUESTION 1**

You are the network administrator for Certkiller .com. The Certkiller network contains seven application servers. Each application server runs a database application named Certkiller App.

Requirements for Certkiller App state that when you add a new user, you must add the user to the server that has the most available disk space.

You need to ensure that you meet the requirements when you add new users to Certkiller App.

What should you do?

- A. Use Event Viewer to review the application logs on each of the seven servers.
- B. Use Performance Logs and Alerts to record the PhysicalDisk object on all seven servers.
- C. Use Task Manager to view the performance data on each of the seven servers.
- D. Use System Monitor to generate a histogram view of the LogicalDisk object on all seven servers.

Answer: D

Explanation: System Monitor shows real-time performance data based on Object counters, and can display the log data recorded by Performance Logs And Alerts either in the form of Counter (interval polling) logs, or Trace (event-driven) logs. Logs written by Performance Logs And Alerts can be loaded into System Monitor for analysis. The System Monitor is designed for real-time reporting of data to a console interface, and can be reported in graph, histogram, or numeric form. This should aid you in ensuring that you meet the stated requirements.

Incorrect answers:

A: The Application log contains data written to it by software programs, it records events that are generated by application programs and network application services. Using Event Viewer to review application logs would thus not ensure that you add a new user to the server with the most available space.

B: The Performance Logs And Alerts snap-in can do no configuration, only reporting data through Counter Logs as reported by providers (object counters) on a configured interval, or through Trace Logs as reported by event-driven providers. Thus this option will not work.

C: Viewing performance data through the Task Manager is not what you need.

Reference:

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 6

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**QUESTION 2**

You are the network administrator for Certkiller .com. All network servers run Windows Server 2003.

The network includes a file server named Certkiller 1. Certkiller 1 contains a single disk for system files and two SCSI hard disks that comprise a 72-GB mirrored volume with 65 GB of read-only data. Users connect to this data by using shortcuts on their desktops.

Certkiller 1 is scheduled for replacement. You have a scheduled maintenance window to complete this task. Before the maintenance window, you build a new server.

You need to bring the new server online with current data and re-establish redundancy as quickly as possible. You must also ensure that the desktop shortcuts will continue to function.

What should you do?

- A. Name the new server Certkiller 1.  
Create a new mirrored volume by using two 72-GB disks.

Connect Certkiller 2 to the network and copy the data from Certkiller 1.

When copying is complete, shut down the old Certkiller 1.

B. Name the new server Certkiller 1.

Move both disks from the old Certkiller 1 to the new Certkiller 1.

Scan the disks for changes.

Import the disks.

Connect the new Certkiller 1 to the network.

C. Name the new server Certkiller 1.

Break the mirror on the old Certkiller 1.

Move one of the disks from the old Certkiller 1 to the new Certkiller 1.

Scan the disk for changes.

Initialize the disk.

Select the spare disk and create the mirror.

Connect the new Certkiller 1 to the network.

D. Name the new server Certkiller 1.

Remove one of the disks in the mirror from the old Certkiller 1.

Move the disk on the new Certkiller 1.

Scan the disk for changes.

Import the disk,

Shut down the old Certkiller 1 and connect the new Certkiller 1 to the network.

Answer: B

Explanation: You have to make use of the existing old Certkiller 1 disks to make sure that the current data will be brought online. When moving disks from one computer to another keep in mind that before disconnecting the disks from the old Certkiller 1 you must make sure the status of all volumes on each of the disks is healthy. For any volumes that are not healthy, repair the volumes before you move the disks. After you physically connect the disks to the new Certkiller 1, in Disk Management, open the Action menu and choose Rescan Disks. The scanning will detect changes. The new disk will show up as Dynamic/Foreign. By default, Dynamic/Foreign disks and should be brought online automatically, but if not, bring it online by right-clicking the disk and selecting Online. Furthermore, to make Dynamic/Foreign disks useable, you must import it. The disk group remain as is and the database does not change. When connecting new Certkiller 1 to the network you will enable users to use their existing shortcuts.

Incorrect answers:

A: Since Certkiller 1 is scheduled for replacement you need no mirroring to be done for the question states pertinently that you have to re-establish redundancy which means that redundancy used to be in place before. A mirrored volume (also known as RAID Level 1 or RAID-1) consists of two identical copies of a simple volume, each on a separate hard disk. Mirrored volumes provide fault tolerance in the event that one physical disk fails. Besides, Certkiller 2 is irrelevant in this scenario.

C: By moving only one disk from the old Certkiller 1 to the new Certkiller 1 will affect not only the current amount of data available, but will also result in a lack of possible redundancy.

D: Removing one old Certkiller 1 disk from the mirror will not enable you to accomplish your task successfully.

Reference:

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 3

**QUESTION 3**

You are the administrator of a Windows Server 2003 computer named Certkiller 1. Two hard disks are installed on Certkiller 1. The hard disks are configured as shown in the exhibit.



The data volume, which resides on Disk 1, is low on space. You need to provide additional space for the data volume. What should you do?

- A. Use Disk Management to extend the data volume.
- B. Run the fsutil volume command on the data volume.
- C. Using Diskpart.exe, run the extend command on the data volume.
- D. In Device Manager, select Disk 1. On the Volumes tab, click the Populate button.

Answer: A

**Explanation:**

To increase a volume's capacity is to extend the volume. You can extend a simple or spanned volume on a dynamic disk so long as that volume is formatted as NTFS and so long as the volume is not the system or boot volume. And this is done through Disk Management.

**Incorrect Answers:**

B: With fsutil, Windows Server 2003 administrators can perform tasks such as managing disk quotas, managing mount points, and several other advanced disk-related tasks. Thus this command does not provide additional space.

C: Diskpart.exe command is used in converting disks and also to extend simple volumes, and not to extend disk volumes as is needed in this case which will have to be a spanned volume.

D: Populating Disk1 does not mean providing additional space.

Reference:

Dan Holme and Orin Thomas, MCSA/MCSE Self-Paced Training Kit (Exam 70-290): Managing and Maintaining a Microsoft Windows Server 2003 Environment, p. 11, 15

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 3

**QUESTION 4**

You are the network administrator for Certkiller .com. Your network includes a computer named Server1, which runs Windows Server 2003. All file and print services, all user home folders and all user profiles reside on Server1.

Certkiller merges with Acme. Users from both companies will store their files and folders on Server1. You run Diskpart.exe to view the disk configuration of Server1, as shown:

```
Diskpart> list Volume
```

Volume ###	Ltr	LABEL	FS	Type	Size	Status	Info
Volume 0	F	021234	NTFS	RAID-5	4096 MB	Healthy	
Volume 1	G	023411	FAT32	Stripe	6144 MB	Healthy	
Volume 2	H	023441	NTFS	Mirror	2048 MB	Healthy	
Volume 3	I	023332	FAT32	Spanned	9 GB	Healthy	
Volume 4	D		CDFS	CD-ROM	0 B		
Volume 5	C		NTFS	Partition	2047 MB	Healthy	System
Volume 6	E		FAT32	Partition	2063 MB	Healthy	Boot

Now you need to increase storage space on Server1. You will not create any additional volumes. What should you do to accomplish this task?

- A. Make use of Diskpart.exe, run the Extend command on volume G:\ Then convert volume G:\ to FAT.
- B. Make use of Diskpart.exe, run the Extend command on volume C:\ Then convert volume C:\ to NTFS.
- C. Make use of Diskpart.exe, run the Extend command on volume I:\ Then convert volume I:\ to NTFS.
- D. Make use of Diskpart.exe, run the Extend command on volume E:\ Then convert volume E:\ to FAT32.

Answer: C

Explanation: You can use the Diskpart.exe utility to manage disks, partitions, and volumes from a command-line interface. You can use Diskpart.exe on both Basic disks and Dynamic disks. If an NTFS volume resides on a hardware RAID 5 container that has the capability of adding space to the container, you can extend the NTFS Volume with Diskpart.exe while the disk remains a Basic disk.

Note: When you use Diskpart.exe to extend an NTFS partition, Microsoft recommends that you perform this task in Safe mode or Active Directory Restore mode. By doing so, you prevent open handles to the drive that cause the process to fail.

Use the extend command to incorporate unallocated space into an existing volume while preserving the data. Incorrect answers:

A: Volume G is a striped volume which will not lend itself to being extended safely and without risks. A striped volume (RAID-0) combines areas of free space from multiple hard disks into one logical volume. Unlike a spanned volume, however, data is written to all physical disks in the volume at the same rate. Because multiple



spindles are in use, read and write performance is increased almost geometrically as additional physical disks are added to the stripe. But like extended simple volumes and spanned volumes, if a disk in a striped volume fails, the data in the entire volume is lost.

B: Volume C contains the system information and it is thus not recommended to use that specific volume to create space for data storage. NTFS can be extended.

D: FAT32 volumes cannot be extended. Also you cannot extend boot volumes.

Reference:

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 3

Dan Holme and Orin Thomas, MCSA/MCSE Self-Paced Training Kit (Exam 70-290): Managing and Maintaining a Microsoft Windows Server 2003 Environment, p. 423

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### QUESTION 5

You are the network administrator for Certkiller .com. All network servers run Windows Server 2003. A server named Server1 hosts several applications. This server contains two hard disks, Disk0 and Disk1. Each disk is connected to a different EIDE channel. Each disk is configured as a basic disk and formatted as NTFS. System files are installed on Disk1.

You install a third hard disk on Server1. You configure it as a basic disk and format it as NTFS.

When you restart Server1, you receive the following message:

"Windows could not start because of a computer disk hardware configuration problem. Could not read the selected boot disk. Check boot path and disk hardware. Please check Windows documentation about hardware disk configuration and your hardware reference manuals for additional information."

You press a key. Server1 restarts, but it displays the same message.

You need to ensure that Server1 will start correctly. Your solution must not require reinstalling any applications on Server1.

What should you do?

- A. Start Server1 from the Windows Server 2003 installation CD-ROM. Use the Recovery Console to repair the system.
- B. Start Server1 in Safe Mode with Command prompt.
- C. Start Server1 from the Windows Server 2003 installation CD-ROM. Press F6 to replace the Mass Storage driver.
- D. Reconfigure the new disk drive so it is enumerated after the existing drives. Restart Server1.

Answer: A

Explanation: Adding the extra hard disk has probably caused the problem. The boot.ini file needs to be corrected to reflect the new disk configuration. We can use the Bootcfg utility in the Recovery Console to correct this problem.

Use the Bootcfg utility in the Recovery Console to correct the Boot.ini file:

1. Use the Windows XP CD-ROM to start your computer.
2. When you receive the message to press R to repair Windows by using the Recovery Console, press the R key.
3. Select the Windows installation that you want, and then type the administrator password when prompted.
4. Type bootcfg /rebuild, and then press ENTER.
5. When the Windows installation is located, the following instructions are displayed:

Add installation to boot list? (Yes/No/All)

[Type Y in response to this message.]

Incorrect Answers:

B: If the boot.ini file is wrong, you won't be able to boot into safe mode.

C: This is not a driver problem. The mass storage driver worked before we added the new disk.

D: The disk drives are on different EIDE controllers, so this won't be possible (without moving the disk to the other EIDE controller).

Reference:

Deborah Littlejohn Shinder and Dr. Thomas W. Shinder, MCSA/MCSE Exam 70-290: Managing and Maintaining a Windows Server 2003 Environment Study Guide & DVD Training System, p. 15

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**QUESTION 6**

You are the network administrator for Certkiller .com. Your network includes a computer named Certkiller Srv1, which runs Windows Server 2003 and Windows XP Professional in a dual boot configuration. Certkiller Srv1 has two basic disks, which are configured as shown in the following table.

Partition	Disk 1	Size
1	System	3 GB
2	Boot	4 GB
N/A	Unused	9 GB
3	Backup data	8 GB

Partition	Disk 2	Size
1	Boot	4 GB
2	Application files	8 GB
N/A	Unused	5 GB
3	N/A	N/A

You need to create a 10 GB partition on Server 1 to store user data. Certkiller Srv1 must retain its dual boot functionality.

What should you do?

A. Convert both disks to dynamic disks.

Create a 10 GB extended volume by using the unused space on Disk 1 and Disk 2.

B. Back up Partition 2 on Disk2.

Remove Partition 2 from Disk 2 and restore it on Disk 1 by using the unused space on Disk 1.

Create a 10 GB partition on Disk 2.

C. Back up partition 2 on Disk 1.

Remove Partition 2 from Disk 1 and restore it on Disk 2 by using the unused space on Disk 2.

Create a 10 GB partition on Disk 1.

D. Convert both disks to dynamic disks.

Back up Volume 2 on Disk 2.

Remove Volume 2 from Disk 2 and restore it on Disk 1 by using the unused space on Disk 1.

Create a 10 GB volume on Disk 2.

Answer: B

Explanation:

You are presented with two choices, one, you could move the Application files from disk 2 to disk 1 or, two, you could move the boot files from disk 1 to disk 2. However, none of these options are desirable; however, moving the application files is a better option. It is not advisable to move the boot files. Because you cannot convert basic disks to dynamic disks if they contain multiple installations of Windows 2000, Windows XP Professional, or the Windows Server 2003 family of operating systems. Moreover, after the conversion, it is unlikely that you will be able to start the computer using that operating system. After the disk is converted to dynamic, you can start the operating system that you used to convert the disk, but you will not be able to start the other operating systems on the disk.

Here are some considerations to keep in mind:

1. You can convert a basic disk containing the system or boot partitions to a dynamic disk.
2. After the disk is converted, these partitions become simple system or boot volumes (after restarting the computer).
3. You cannot mark an existing dynamic volume as active.
4. You can convert a basic disk containing the boot partition (which contains the operating system) to a dynamic disk.
5. After the disk is converted, the boot partition becomes a simple boot volume (after restarting the computer).

Incorrect Answers:

A: Because you cannot convert basic disks to dynamic disks if they contain multiple installations of Windows 2000, Windows XP Professional, or the Windows Server 2003 family of operating systems. Moreover, after the conversion, it is unlikely that you will be able to start the computer using that operating system. After the disk is converted, the boot partition becomes a simple boot volume (after restarting the computer).

C: It is not advisable to move the boot files even if it is possible.

D: Do not convert basic disks to dynamic disks if they contain multiple installations of Windows Operating systems. After the conversion, it is unlikely that you will be able to start the computer using that operating system.

Reference:

Dan Holme and Orin Thomas, MCSA/MCSE Self-Paced Training Kit (Exam 70-290): Managing and Maintaining a Microsoft Windows Server 2003 Environment, p. 433  
Server Help

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### **QUESTION 7**

You are the network administrator for Certkiller .com. You administer a Windows Server 2003 computer named Certkiller 12. Certkiller 12 has a single disk. The disk is configured so that it has four primary partitions, which are formatted as FAT32. The disk also has unallocated space available.

You need to use the unallocated disk space to store user data.

What should you use?

- A. Convert all existing partitions to NTFS.
- B. Using Diskpart.exe, run the create command.
- C. Convert the disk to a dynamic disk, and create a new volume.
- D. Using Diskpart.exe, run the extend command.



Answer: C

Explanation: Converting the disk to a dynamic disk and then creating a new volume will enable you to use the unallocated disk space to store data.

Incorrect answers:

A: Merely converting all existing partitions to NTFS is not the answer. This is only part of the solution.

B: Diskpart.exe command is used in converting disks and also to extend simple volumes, and not to extend disk volumes as is needed in this case which will have to be a spanned volume.

D: You can use the Diskpart.exe utility to manage disks, partitions, and volumes from a command-line interface. You can use Diskpart.exe on both Basic disks and Dynamic disks. Use the extend command to incorporate unallocated space into an existing volume while preserving the data. However, FAT32 volumes cannot be extended.

Reference:

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 3

Dan Holme and Orin Thomas, MCSA/MCSE Self-Paced Training Kit (Exam 70-290): Managing and Maintaining a Microsoft Windows Server 2003 Environment, p. 423

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### QUESTION 8

You are the network administrator for Certkiller .com. You manage a Windows 2003 computer named Certkiller 3 that functions as a file server.

The data volume on Certkiller 3 is mirrored. Each physical disk is on a separate controller. One of the hard disks that contains the data volume fails. You discover that the failure was caused by a faulty SCSI controller. You replace the SCSI controller.

You need to restore the data volume to its previous state. You want to achieve this goal by using the minimum amount of administrative effort.

What should you do?

- A. Run the diskpart active command on the failed volume
- B. Convert both disks to basic disks, and then restore the data.
- C. Break the mirror, and then re-create the mirror.
- D. Select a disk in the mirror, and then reactivate the volume.

Answer: D

Explanation: To restore the volume, replace the failed disk, rescan the disks, and reactivate the disk. If this doesn't make the volume healthy again, then right-click the volume and choose Reactivate Volume. The computer will chug away for a couple of minutes, rebuilding the missing data with the parity information on the remaining disks, and the stripe set will be back in one piece. Thus if you select a disk in the mirror and then reactivate the volume you will solve the problem in this case.

Incorrect answers:

A: Replaces the FDISK tool with which you're probably familiar. Creates or deletes disk partitions. Only use this command on basic disks-it can damage dynamic disks. This is not what is needed here.

B: This is unnecessary.

C: There is no need to break the mirror since the problem only arose due to a failed SCSI controller.

Reference:

Mark Minasi, Christa Anderson, Michele Beveridge, C.

A. Callahan & Lisa Justice, Mastering Windows

Server 2003, Sybex Inc., Alameda, 2003, pp. 867, 891

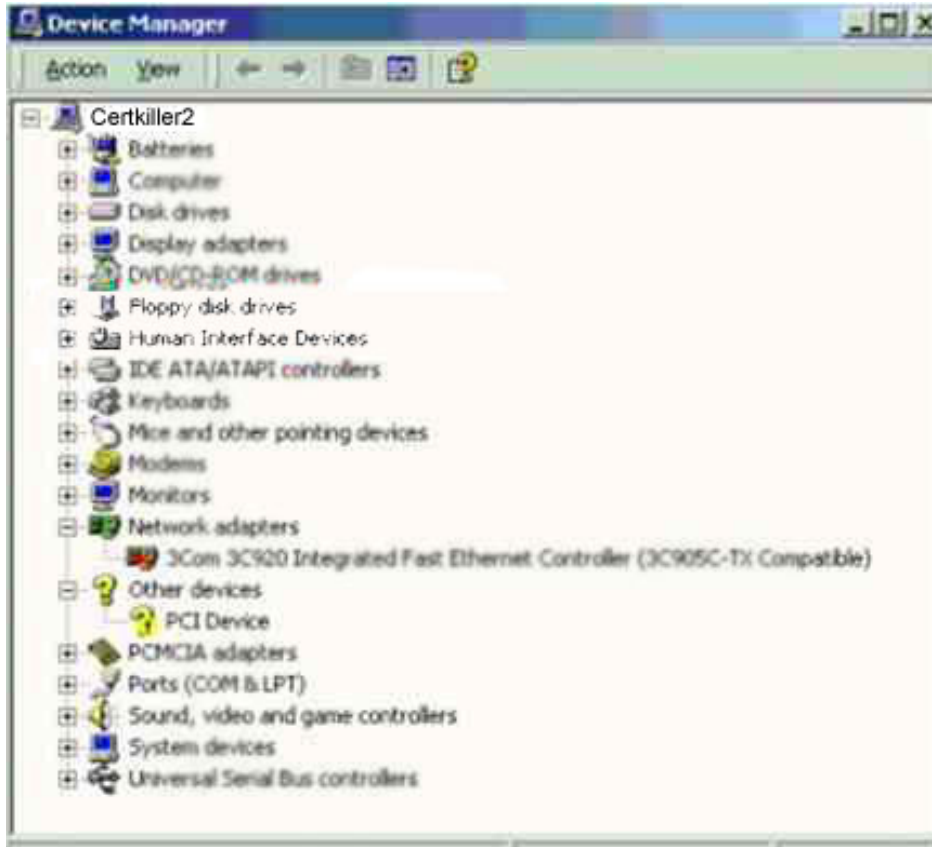
Lisa Donald & Suzan Sage London & James Chellis, MCSA/MCSE: Windows(r) Server 2003 Environment Management and Maintenance: Study Guide, Sybex Inc, Alameda, 2003, pp. 230-231

Part 2: Monitor and Repair server hardware. Tools might include Device Manager, the Hardware Troubleshooting Wizard, and appropriate Control Panel items. (10 Questions)

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**QUESTION 9**

Exhibit



You are the network administrator for Certkiller .com. The network consists of a single Active Directory domain named Certkiller .com. All domain controllers run Windows Server 2003, and all client computers run Windows XP Professional.

Dr Bill, one of the users in the domain, report that she cannot access a server named Certkiller 2.

What action should you take to enable Dr.Bill to access the server?

Answer:

Explanation: Re-enable the NIC.

In the exhibit the 3Com 3C920 Integrated Fast Ethernet Controller is mark with a red cross. This means that Dr. Bill will first have to enable this card to re-establish a connection to the server Certkiller 2.

If you disable a listener connection, no one will be able to connect to Terminal Services on the NIC for which it is configured until you re-enable it.

References:

Deborah Littlejohn Shinder and Dr. Thomas W. Shinder, MCSA/MCSE Exam 70-290: Managing and Maintaining a Windows Server 2003 Environment Study Guide & DVD Training System, p. 547

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**QUESTION 10**

You are the network administrator for Certkiller .com. Your network consists of a single Active Directory domain named Certkiller .com. All network servers run Windows Server 2003. You use Microsoft Operations Manager (MOM) to monitor all servers.

An e-mail server named Mail CK1 is located at a remote data center. Mail CK1 runs Microsoft Exchange Server 2003.

Mail CK1 restarts unexpectedly during business hours. The event log indicates a problem with the SCSI CD-ROM.

You need to ensure that Mail CK1 remains continuously available during business hours. What should you do?

- A. Use Device Manager to disable the SCSI CD-ROM.
- B. Create and implement a new hardware profile to exclude the SCSI CD-ROM.
- C. Use Device Manager to update the driver for the SCSI CD-ROM.
- D. Use Device Manager to update the driver for the SCSI controller.

Answer: A

Explanation: The problem lies with the SCSI CD-ROM as indicated by the Event Log. This means that if you circumvent the problem you will avoid the problem of Mail CK1 restarting at unexpected times. Thus you only need to disable the SCSI CD-ROM and not remove it. You can enable and disable devices for a specific hardware profile through their properties dialog boxes in Device Manager.

Incorrect answers:

B: It is not necessary to create a new hardware profile.

C: Updating the driver may solve the problem. However, disabling the device will make sure of it.

D: Updating the driver for the SCSI controller by making use of Device Manager will not solve the problem of the server starting unexpectedly.

Reference:

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 2

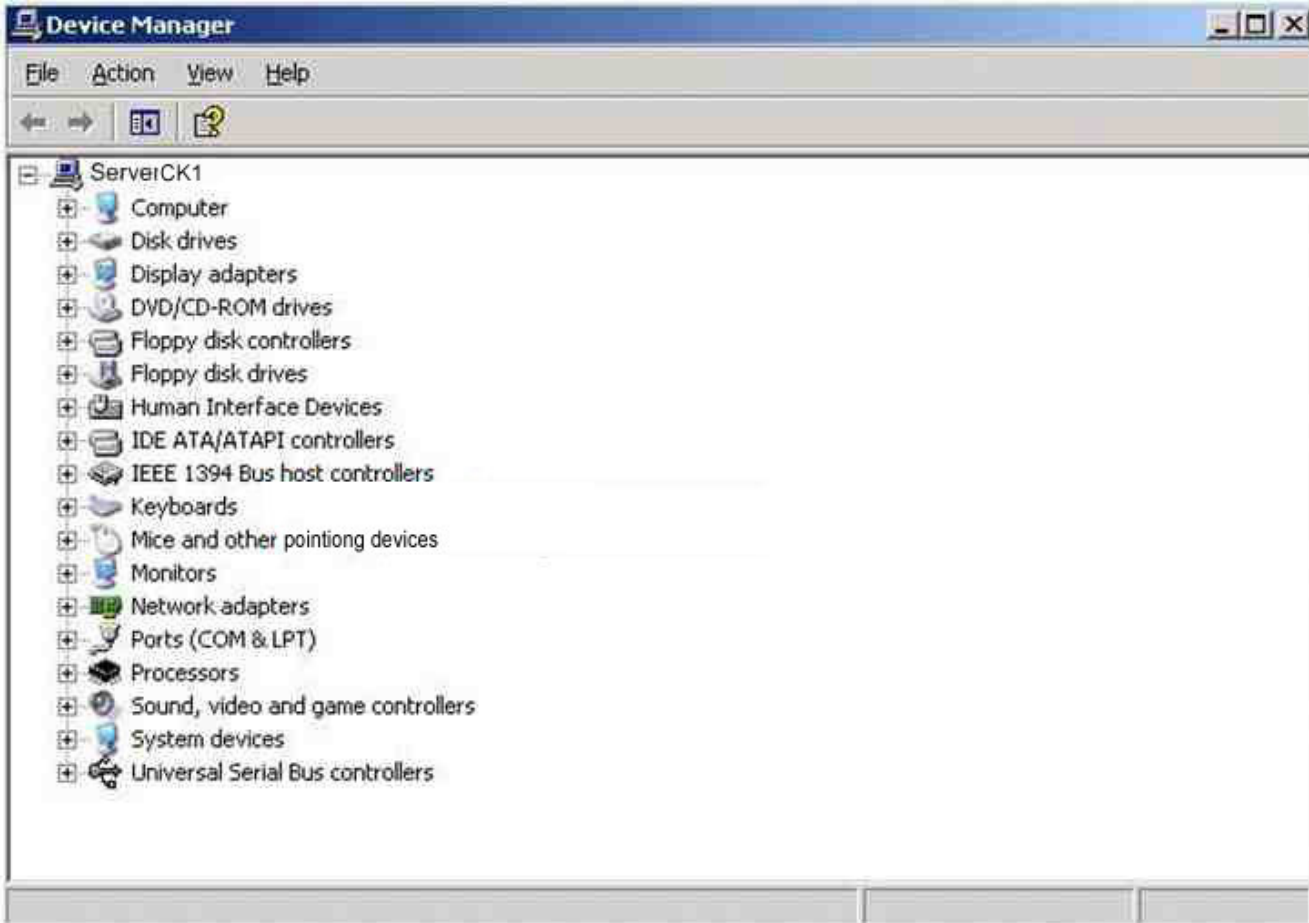
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**QUESTION 11**

You are the network administrator for Certkiller .com. All network servers run Windows Server 2003. Your network includes one branch office in addition to the main office. A server named Server CK1 connects the main office to the branch office by using an external dial-up modem.

One morning, users report that the connection to the branch office is not functioning.

On investigation, you discover that the modem is turned off. You restart the modem. Then you open Device Manager and see the information shown in the exhibit:



You need to ensure that the connection between the main office and the branch office functions correctly. Your solution must involve the minimum amount of change to Server CK1 and the minimum amount of interruption in network service.

What should you do?

- A. Restart Server CK1 .
- B. Create a new dial-up connection to the branch office.
- C. Open Device Manager to scan Server CK1 for changes in hardware.
- D. Use the Add Hardware Wizard to detect and install the modem.

Answer: C

Explanation: According to the exhibit, there is no modem found. This is evident from the lack of modem subsection. You should thus Open Device Manager to scan Server CK1 for changes in hardware in an effort to find the modem. This will ensure that you do not add any changes to the existing network and with the minimum amount of server downtime.

Incorrect answers:

- A: Restarting the server as suggested here does not mean restoring the settings and establishing the connection from the branch office to the head quarters because the modem has been unplugged.
- B: Creating a new dial-up connection to the branch office will involve unnecessary changes.
- D: You do not need to add any hardware as the modem was installed and was operational before. You use the

Add Hardware Wizard when you want to add new hardware to the computer and the modem is not new it was just turned off.

Reference:

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 4

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**QUESTION 12**

You are the file server administrator for Certkiller . The company network consists of a single Active Directory domain named Certkiller .com. The domain contains 12 Windows Server 2003 computers and 1,500 Windows XP Professional computers.

You manage three servers named Certkiller 1, Certkiller 2, and Certkiller 3. You need to update the driver for the network adapter that is installed in Serve1.

You log on to Certkiller 1 by using a nonadministrative domain user account named Bill. You open the Computer Management console. When you select Device Manager, you receive the following error message: "You do not have sufficient security privileges to uninstall devices or to change device properties or device drivers".

You need to be able to run the Computer Management console by using the local administrator account. The local administrator account on Certkiller 1, Certkiller 2, and Certkiller 3 has been renamed Jack. Jack's password is kY74X.

In Control Panel, you open Administrative Tools. You right-click the Computer Management shortcut and click Run as on the shortcut menu.

What should you do next?

**Users Names and Passwords**

**Select from these**

Certkiller1\Jack

Certkiller\Jack

Certkiller\Administrator

kY74X

**Dialog Box**

**Place here**



Answer:



**Users Names and Passwords**  
Select from these

Certkiller\Jack

Certkiller\Administrator

**Dialog Box**  
Place here



Explanation:

You need to make use of "The following User" setting because you want to run the program under a different account to the one you're logged in with, by entering " Certkiller 1\Jack" in the User Name field, enter kY74X" in the password field. Certkiller 1\Jack indicates a user account named Jack on a computer named Certkiller 1; in this scenario, this is the local administrator account.

Reference:

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 2

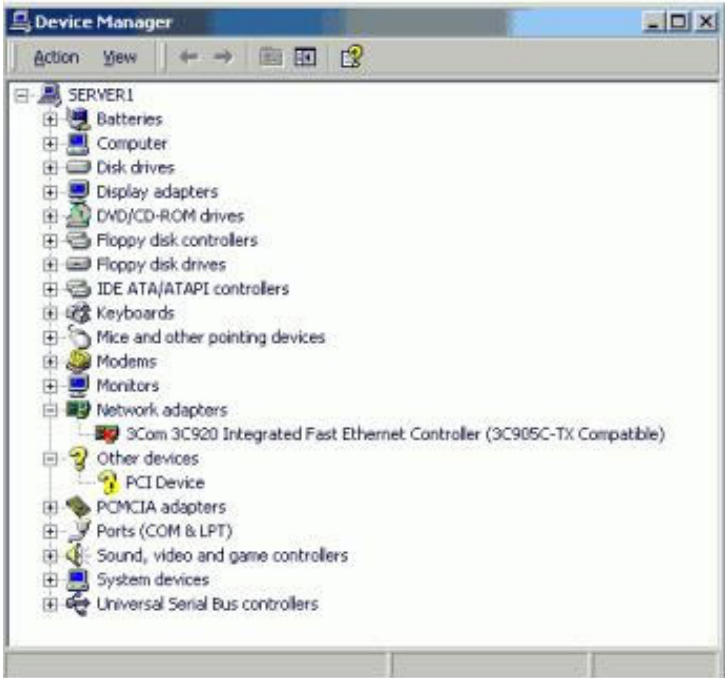
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**QUESTION 13**

You are the network administrator for Certkiller .com. All network servers run Windows Server 2003, and all client computers run Windows XP Professional.

A user reports that she cannot access a server named Certkiller B.

First, you verify that the network adapter on Certkiller B has the correct driver installed. Then, you open Device Manager on Certkiller B. You see the display shown in the exhibit.



Now you need to use Device Manager to restore network connectivity on Certkiller B. What should you do?

- A. Enable the network adapter.
- B. Change the IRQ setting of the network adapter.
- C. Change the IP address of the network adapter.
- D. Adjust the link speed of the network adapter to match the link speed of the network.
- E. Resolve all possible hardware conflicts between the network adapter and the unknown device.

Answer: A

Explanation: The exhibit shows that the network card is disabled. The question also mentions that the correct driver is installed. Therefore, by enabling the network adapter will render it operational.

Incorrect Answers:

B: Interrupt request (IRQ) - One of a set of possible hardware interrupts, identified by a number. The number of the IRQ determines which interrupt handler will be used. If the IRQ was wrong, the network adapter would have an exclamation mark in a yellow circle over it.

C: If the IP address was wrong, the network adapter would seem to be operational in Device Manager.

D: If the link speed was wrong, the network adapter status will appear as operational in Device Manager.

E: If there was a hardware conflict, the network adapter status will be marked with an exclamation mark in a yellow circle over it.

Reference:

Dan Holme and Orin Thomas, MCSA/MCSE Self-Paced Training Kit (Exam 70-290): Managing and Maintaining a Microsoft Windows Server 2003 Environment, p. 763

## QUESTION 14

You are the network administrator for Certkiller .com. The network consists of a single Active Directory domain Certkiller .com. All network servers run Windows Server 2003.

Certkiller operates 10 branch offices in addition to the main office. Each branch office has one filer server with two logical disks, P:\ and U:\. Each disk has a capacity of 20 GB. For each department in the branch office, P:\ hosts one folder in which departmental users save shared documents. For all users in the branch office, U:\ hosts home folders.

The main office includes a network operations center that monitors servers and network status. However, branch office users frequently report that their servers have no more disk space. In such cases, local support technicians log on to the servers and delete unnecessary files.

You need to create a proactive monitoring strategy for the network operations center. Monitoring must alert the network operations center before the branch office servers run out of disk space. Monitoring must also report which disks on the servers are approaching capacity. The monitoring strategy must require the minimum amount of administrative effort.

What should you do?

- A. Configure a server in the main office to report performance alters on the branch office servers. Use the logicaldisk(\_total)\ &Free Space counter to indicate when free space is less than 5 percent. Use the logicaldisk(\_total)\Free megabytes counter to indicate when free space is less than 100 MB.
- B. On each branch office server, create a performance alert. Use the logicaldisk(\_total)\ %Free Space counter to indicate when free space is less than 5 percent. Use the logicaldisk(\_total)\Free megabytes counter to indicate when free space is less than 1000 MB.
- C. Configure a server in the main office to report performance alerts on the branch office servers. Use the logicaldisk(P)\ %Free Space counter and the logicaldisk(U)\ %Free Space counter to indicate when free space is less than 5 percent.
- D. On each branch office server, create a performance alert. Use the logicaldisk(P)\ %Free Space counter and the logicaldisk(U)\ %Free Space counter to indicate when free space is less than 5 percent.

Answer: C

Explanation: The monitoring must alert the network operations centre before the branch office servers run out of disk space and monitoring must also report which disks on the servers are approaching capacity. LogicalDisk: % Free Space is a counter that indicates the amount of free space available on the disk as a percentage of the total disk capacity. Paging problems can occur if you have little disk space to which the system can swap data out of memory, and operating system errors can occur if the partition on which the OS is installed becomes too full.

Incorrect Answers:

- A: It is necessary is to know which disks are near capacity, so we cannot monitor the total disk space - we must monitor the individual logical disks.
- B: We need to know which disks are near capacity, so we cannot monitor the total disk space - we must monitor the individual logical disks.
- D: The monitoring must alert the network operations centre before the branch office servers run out of disk space; therefore, the monitoring should be done from the main office.

Reference:

Deborah Littlejohn Shinder and Dr. Thomas W. Shinder, MCSA/MCSE Exam 70-290: Managing and Maintaining a Windows Server 2003 Environment Study Guide & DVD Training System, p. 748

**QUESTION 15**

You are the network administrator for Certkiller .com. You administer a Windows Server 2003 computer named Certkiller 5. The hardware vendor for Certkiller 5 notifies you that a critical hotfix is available. This hotfix is required for all models of this computer that have a certain network interface card.

You need to find out if the network interface card that requires the hotfix is installed in Certkiller 5.

What are two possible ways to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

- A. Open Network Connections, and then examine the properties of each connection that is listed.
- B. Open the Component Services snap-in, expand Computers, expand My Computer, and then examine the list.
- C. Run the netsh interface command, and then examine the list.
- D. Open Device Manager, expand Network adapters, and then examine the list.

Answer: A, D

Explanation:

A: The Network Connections tab contains settings for network connections and a Wizard to create new connections. From there you will be able to examine the properties of each connection that is listed. This will reveal if the network interface card that requires the hotfix is installed on Certkiller 5.

D: The Device Manager utility is a graphically-based utility that provides information about all of the devices that your computer currently recognizes. Through Device Manager, you can see a summary of all of the currently installed hardware; view and change hardware settings; view, uninstall, update or roll back a device driver; disable and enable devices; and print a summary of all of the hardware devices that have been installed on your computer. You can also run the Hardware Troubleshooting Wizards from Device Manager.

If you make use of Device Manager and then expand the Network Adapters tab, you will be able to find out if the appropriate network interface card is installed on Certkiller 5.

Incorrect answers:

B: This option will not display the relevant information needed.

C: You can use commands in the Netsh Interface IP context to configure the TCP/IP protocol (including addresses, default gateways, DNS servers, and WINS servers) and to display configuration and statistical information.

Reference:

Microsoft Knowledge Base: 306794: How to Install the Support Tools from the Windows XP CD-ROM  
Network Monitor is provided with Windows Server products and Microsoft Systems Management Server (SMS). Microsoft Corporation, 2004

Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Chad Todd & Laura Hunter, MCSA/MCSE: Exam 70-291: Implementing, Managing, and Maintaining a Windows Server 2003 Network Infrastructure Guide & DVD Training System, pp. 686, 854-856, 926

Lisa Donald & Suzan Sage London & James Chellis, MCSA/MCSE: Windows(r) Server 2003 Environment Management and Maintenance: Study Guide, Sybex Inc, Alameda, 2003, Chapter 2, pp. 84 & 116

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**QUESTION 16**

You are the network administrator for Certkiller .com. You are the administrator of a Windows Server 2003 computer named Certkiller 3.

Newly hired employees recently started storing files on Certkiller 3. Now users report that Certkiller 3 is responding much slower than it did before the additional users were added. You suspect the disk

subsystem needs to be upgraded to accommodate the additional user load.  
You need to confirm whether the disk subsystem on Certkiller 3 needs to be upgraded.  
What should you do?

- A. Configure a Performance Logs and Alerts on the %Free space counter.
- B. Use Device Manager to populate volume settings and examine the properties of the disk drives on Certkiller 3.
- C. Use Event View to examine the system logs and search the system logs for event logs for events generated by the disk event source.
- D. Use System Monitor to monitor counters based on the PhysicalDisk object.

Answer: D

Explanation: One adds key counters to track for the processes subsystem and how to tune and upgrade the processes subsystem to the System Monitor. The PhysicalDisk object is the sum of all logical drives on a single physical drive. Adding this object counter to the System Monitor should give you the relevant information necessary to confirm whether an upgrade of the disk subsystem is needed.

Incorrect answers:

- A: The %Free space counter tracks how much free space is available on the hard drive. It is a way to track disk space usage proactively so users do not experience "out of disk space" errors. This is not the information needed to confirm whether an upgrade of the disk subsystem is needed.
- B: Device Manager is a Windows Server 2003 utility used to view information about the computer's hardware configuration and set configuration options. This is not what is required.
- C: Event Viewer is a Windows Server 2003 utility that tracks status information about the computer's hardware and software, as well as security events. This information is stored in multiple log files dependent upon the configuration of the server. The minimum number of logs is three: the Application log, the Security log, and the System log. However, you should rather make use of System Monitor to monitor counters based on the PhysicalDisk object in this case.

Reference:

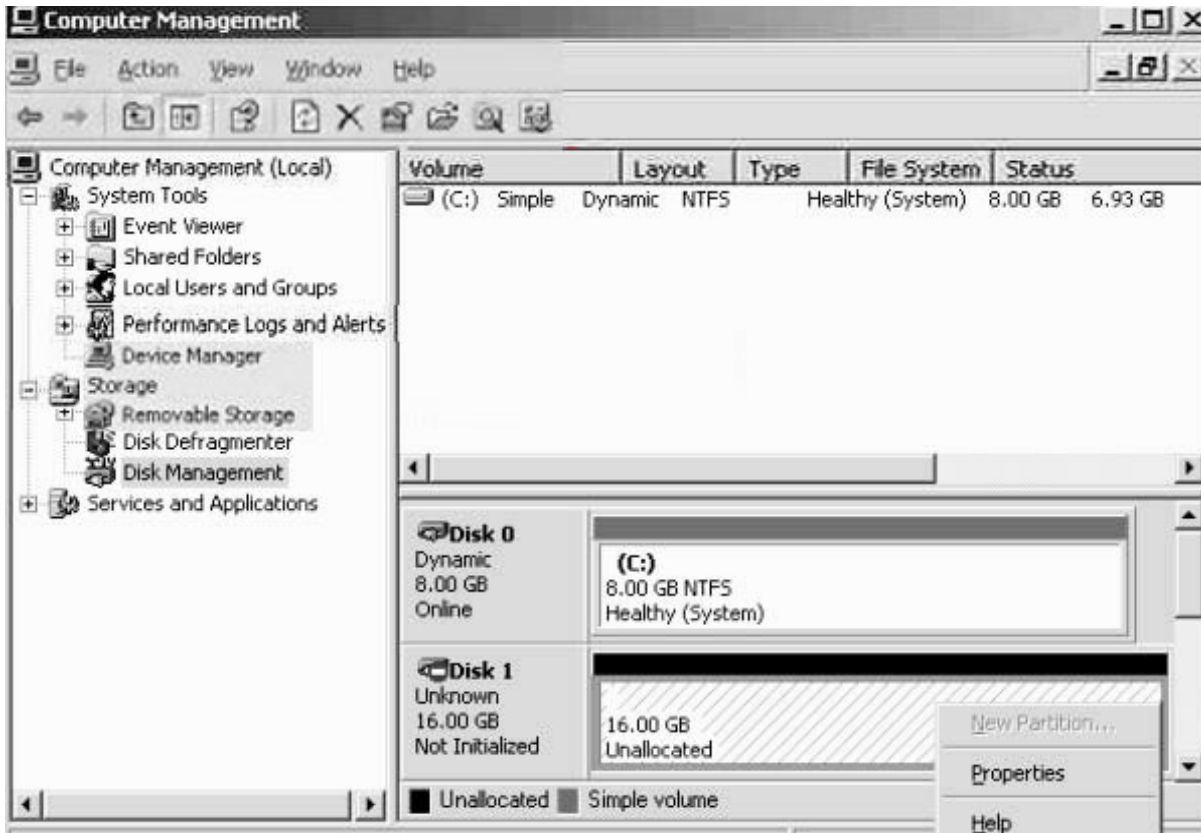
Lisa Donald & Suzan Sage London & James Chellis, MCSA/MCSE: Windows(r) Server 2003 Environment Management and Maintenance: Study Guide, Sybex Inc, Alameda, 2003, Chapter 9, p. 460

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**QUESTION 17**

Exhibit





You are the network administrator for Certkiller .com. All network servers run Windows Server 2003. A Windows Server 2003 computer named Certkiller 2 functions as a mail server.

Certkiller 2 has a single disk that is configured as a basic disk. You add a second disk. In Disk Management, you right-click the unallocated file system. You discover that the "New Partition" menu command is unavailable, as shown in the exhibit.

You need to create a new partition.

What should you do?

- A. Restart the server, and then select the New partition menu command.
- B. Right-click the disk, select Initialize, and then select the New partition menu command.
- C. Replace the disk that you added, and then select the New partition menu command.
- D. Ask the appropriate administrator to assign you Administrator rights on Certkiller 2, and then select the New partition menu command.

Answer: B

Explanation: When you attach a new disk to your computer, you must first initialize the disk before you can create partitions. When you first start Disk Management after installing a new disk, a wizard appears that provides a list of the new disks that are detected by the operating system. When you complete the wizard, the operating system initializes the disk by writing a disk signature, the end of sector marker (also called a signature word), and a master boot record (MBR). The question states that a second disk has been added thus you will need to initialize the disk and then select the new Partition menu command to create a new partition.

Incorrect answers:

A: Restarting the server is not the way to go when you first need to initialize the disk as the question states that a

second disk has been added.

C: This does not make sense considering that a second disk has already been added. What is needed is to initialize the disk and only then will the New Partition menu command be available.

D: This is not a matter of administration rights.

Reference:

Dan Holme and Orin Thomas, MCSA/MCSE Self-Paced Training Kit (Exam 70-290): Managing and Maintaining a Microsoft Windows Server 2003 Environment, p. 11.38

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 3

Lisa Donald & Suzan Sage London & James Chellis, MCSA/MCSE: Windows(r) Server 2003 Environment Management and Maintenance: Study Guide, Sybex Inc, Alameda, 2003, Chapter 4, p. 216

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### **QUESTION 18**

You are the network administrator for Certkiller .com. All network servers run Windows Server 2003. The network includes a file server named Certkiller 17. Certkiller 17 contains a single disk for system files and two SCSI hard disks that comprise a 72-GB mirrored volume with 65 GB of read-only data. Users connect to this data by using shortcuts on their desktops.

Certkiller 17 is scheduled for replacement. You have a scheduled maintenance window to complete this task. Before the maintenance window, you build a new server.

You need to bring the new server online with current data and re-establish redundancy as quickly as possible. You must also ensure that the desktop shortcuts will continue to function.

What should you do?

- A. Name the new server Certkiller 20. Create a new mirrored volume by using two 72-GB disks. Connect Certkiller 20 to the network and copy the data from Certkiller 17. When copying is complete, shut down the old Certkiller 17.
- B. Name the new server Certkiller 17. Move both disks from the old Certkiller 17 to the new Certkiller 17. Scan the disks for changes. Connect the new Certkiller 17 to the network.
- C. Name the new server Certkiller 17. Break the mirror on the old Certkiller 17. Move one of the disks from the old Certkiller 17 to the new Certkiller 17. Scan the disk for changes. Initialize the disk. Select the spare disk and create the mirror. Connect the new Certkiller 17 to the network.
- D. Name the new server Certkiller 17. Remove one of the disks in the mirror from the old Certkiller 17. Move the disk to the new Certkiller 17. Scan the disk for changes. Import the disk. Shut down the old Certkiller 17 and connect the new Certkiller 17 to the network.

Answer: B

Explanation: The "Scan For Hardware Changes" option allows you to force a manual scan to see if any new hardware changes have been detected. To be able to bring the server online with the current data and re-establishing redundancy as soon as possible whilst ensuring that desktop shortcuts stay functional, you will need to give the same name to the new server, namely Certkiller 17 and use the two disks from the old Certkiller 17. You should then scan it for any changes and then connect the new Certkiller 17 to the network.

Incorrect answers:

A: There is no need to create a new mirrored volume in this case. Besides where will you get the two new disks from to copy the existing data of Certkiller 17 onto. What is needed is to use the old Certkiller 17 disks to

provide

continuity for users insofar as disktop shortcuts are concerned.

C & D: This is not necessary. All that has to be done is touse the existing Certkiller 17 disks and put them on the

newly created and named Certkiller 17 server. Scanning the disk for changes and then connecting new Certkiller 17 to the network.

Reference:

Lisa Donald & Suzan Sage London & James Chellis, MCSA/MCSE: Windows(r) Server 2003 Environment Management and Maintenance: Study Guide, Sybex Inc, Alameda, 2003, Chapter 2, p. 91

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### **QUESTION 19**

You are the network administrator for Certkiller .com. All network servers run Windows Server 2003. A server named CK1 contains a simple volume that stores mission critical data files. CK1 experiences hardware failure and stops functioning. Replacement parts will be available within 72 hours.

A second file server named CK2 is available. However, CK2 has insufficient disks space to hold the data on CK1 .

You need to provide immediate access to the data on CK1 .

First, you install the disks from CK1 on CK2 and restart CK2 . However, the disks do not appear in Disk Management.

Which action or actions should you perform? (Choose all that apply)

- A. Install the disks from CK1 on CK2 . In Disk Management, initialize the disks.
- B. Install the disks from CK1 on CK2 . In Disk Management, rescan the disks.
- C. In Disk Management, select each disk from CK1 . Then, select the option to import foreign disks.
- D. In Disk Management, select each disk from CK1 . Them, select the option to repair the volume.
- E. On CK2 , run the mountvol /p command from a command prompt.
- F. On CK2 , convert the dynamic disks to basic disks.

Answer: B, C

Explanation: It is imperative that you rescan disks after you move hard disks between computers. Following is the reason: When Disk Management rescans disk properties; it scans all attached disks for changes to the disk configuration. It also updates information about removable media, CD-ROM drives, basic volumes, file systems, and drive letters.

When you move a dynamic disk from one computer to another, Windows Server 2003 considers the disk as a foreign disk by default. When Disk Manager indicates the status of a new disk as foreign, you have to import the disk before you can access volumes on the disk.

Incorrect Answers:

A: When you attach a new disk to your computer, you must first initialize the disk before you can create partitions. When you first start Disk Management after installing a new disk, a wizard appears that provides a list of the new disks that are detected by the operating system. When you complete the wizard, the operating system initializes the disk by writing a disk signature, the end of sector marker (also called a signature word), and a master boot record (MBR). If you cancel the wizard before the disk signature is written, the disk status remains Not Initialized.

D: Since replacement parts are underway, you need not repair the disk as this will not make the CK1 data available immediately.

E: The Mountvol command creates, deletes, or lists a volume mount point. Mountvol is a way to link volumes without requiring a drive letter.

F: If you convert the dynamic disks to basic disks you will lose the data and the question pertinently asks for the CK1 data to be made available.

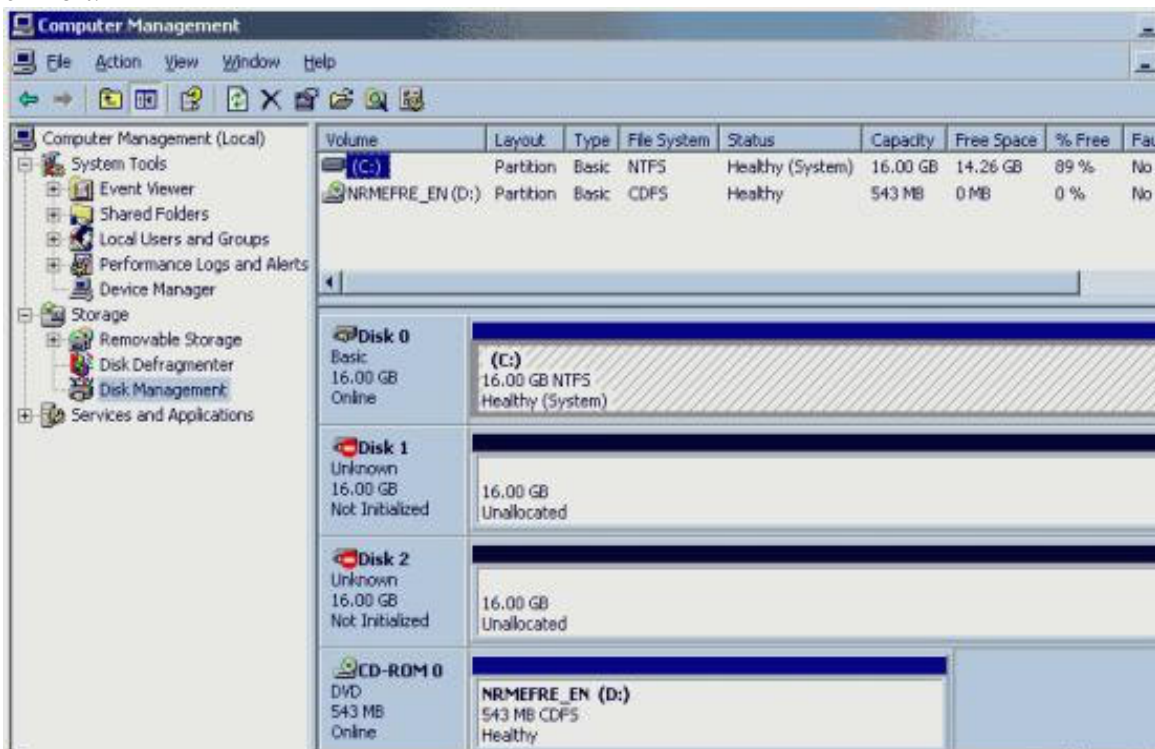
Reference:

Dan Holme and Orin Thomas, MCSA/MCSE Self-Paced Training Kit (Exam 70-290): Managing and Maintaining a Microsoft Windows Server 2003 Environment, p. 11.38

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 3

## QUESTION 20

You are the network administrator for Certkiller .com. All network servers run Windows Server 2003. Certkiller A hosts highly confidential files. The Disk Management console for Certkiller A is shown in the exhibit.



You need to ensure the security of all files on Certkiller

A. In the event of disk failure, you need to minimize the time required to make these files available again. You also need to improve file system performance.

How will you go about accomplishing these objectives?

- A. Configure the unallocated disks in a RAID-0 configuration and then convert the disks to basic disks.
- B. Configure one of the unallocated disks in a RAID-1 configuration and then convert the disks to dynamic disks.
- C. Store a shadow copy of disk C on one of the unallocated disks and then convert the disks to basic disks.
- D. Configure the unallocated disks as an extended volume and then convert the disks to dynamic disks.

Answer: B

Explanation:

Part of the objectives state that you must minimize the time needed to make these files available again in case of disk failure. This can be accomplished through mirroring Disk0 to another disk. A disk mirror is also known as RAID-1. You have to convert the disks to dynamic disks to accomplish this. A mirrored volume is a fault-tolerant set of two physical disks that contain an exact replica of each other's data within the mirrored portion of each disk. Mirrored volumes are supported only on Windows Server computer versions.

If you convert the disk containing the boot and system partitions to a dynamic disk, you can mirror the boot and system volumes onto another dynamic disk. Then, if the disk containing the boot and system volumes fails, you can start the computer from the disk containing the mirrors of these volumes.

Incorrect Answers:

A: A RAID-0 is fast but it offers no redundancy. Redundancy is necessary if you need to consider using the minimum time needed to make these files available after possible disk failure. The disks are already basic disks there is no need for any conversion. Furthermore the objectives will only be met through converting the disks to dynamic volumes.

C: A shadow copy will keep copies of previous versions of the files. You won't be able to access these though if Disk0 fails. The disks are already basic disks there is no need for any conversion. Furthermore the objectives will only be met through converting the disks to dynamic volumes.

D: An extended volume offers no redundancy which if needed to minimize the time needed to make these files available in case of disk failure. Though dynamic disks will allow mirroring, the extended volume configuration will negate that possibility.

Reference:

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 3

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### **QUESTION 21**

You are the network administrator for Certkiller .com. You administer a Windows Server 2003 computer named Certkiller 4. Certkiller 4 has a single physical disk that is configured as a simple volume.

You plan to store the files for a large database on Certkiller 4. You plan to install additional physical disks on Certkiller 4.

You need to reconfigure the disks on Certkiller 4. Your solution must provide fault tolerance for the operating system and the database files.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Install three additional physical disks. Create a new RAID-5 volume. Place the database files on the new volume.

B. Install three additional physical disks. Create a new striped volume. Place the database files on the new volume.

C. Install one additional physical disk. Configure the simple volume as a mirrored volume.

D. Install one additional physical disk. Configure the simple volume as a spanned volume.

Answer: A, C

Explanation: RAID (Redundant Array of Independent Disks)-5 volume or striped set with parity volume is a



fault-tolerant collection of equal-sized partitions on at least three physical disks, in which the data is striped and includes parity data. The parity data helps recover a member of the striped set if the member fails. If a single disk fails in a RAID-5 volume, data can continue to be accessed as is the case here. During read operations, any missing data is regenerated on the fly through a calculation involving remaining data and parity information thus taking care of redundancy in the sense that work will continue and no information will be lost. RAID-5 can only sustain a single drive failure. Thus RAID-5 is a volume configuration that stripes data over multiple disk channels and places a parity stripe across the volume for fault tolerance. A mirrored volume set contains a primary volume and a secondary volume. The data written to the primary volume is mirrored to the secondary volume. Mirrored volumes provide fault tolerance, because if one volume in the mirrored volume fails, the other volume still works without any interruption in service or loss of data. Mirrored volumes are copies of two simple volumes stored on two separate physical drives. So, if you are to provide fault tolerance for the operating system and the database files in your re-configuration of Certkiller 4, you should install three additional physical disks, create a new Raid-5 volume and place the database files on the new volume. You should also install another physical disk and configure it as a mirrored volume.

Incorrect answers:

B: A striped volume is a dynamic disk volume that stores data in equal stripes between 2 to 32 dynamic drives. Typically, administrators use striped volumes when they want to combine the space of several physical drives into a single logical volume and increase disk performance. You should not create a new striped volume, RAID-5 will provide fault tolerance since Certkiller 4 is configured as a simple volume.

D: A spanned volume is a dynamic disk volume that consists of disk space on 2 to 32 dynamic drives. Spanned volume sets are used to dynamically increase the size of a dynamic volume. With spanned volumes, the data is written sequentially, filling space on one physical drive before writing to space on the next physical drive in the spanned volume set. Certkiller 4 is a simple volume.

Reference:

Lisa Donald & Suzan Sage London & James Chellis, MCSA/MCSE: Windows(r) Server 2003 Environment Management and Maintenance: Study Guide, Sybex Inc, Alameda, 2003, Chapter 4, p. 208

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### QUESTION 22

You are the network administrator for Certkiller .com. You manage a Windows Server 2003 computer that functions as a file server.

The data volume on the server is configured as a software RAID-5 array. One of disks that contain the data volume fails. You replace the failed disk. You start the Disk Management utility and view the status listed in the following table.

Disk	Status	Type
Disk1	Online	Dynamic
Disk2	Online	Dynamic
Disk3	Not initiated	Unknown
Missing	Offline	Dynamic

You need to restore fault tolerance.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Create a striped set that includes Disk1 and Disk2.
- B. Initialize Disk3 and convert it to a dynamic disk.

- C. Reactivate the RAID-5 array volume.
- D. Repair the RAID-5 array volume to include Disk3.
- E. Initialize Disk3 and configure it as a basic disk.
- F. Reactivate the missing disk.

Answer: B, D

Explanation: The question states that Disk3 is not initiated. Thus to restore fault tolerance you should make sure that their type are all the same, hence the need to initialize Disk3 and converting it to dynamic. A RAID-5 volume is where data is written to 3 to 32 physical disks at the same rate, and is interlaced with parity to provide fault tolerance for a single disk failure. Since the question mentions that the data volume that is configured as a software RAID-5 array has one failed disk, you should also repair the array to restore fault tolerance.

Incorrect answers:

- A: A mere striped set that includes only Disk1 and Disk2 will not restore the lost fault tolerance since those two disks are still operational and available and not Disk3.
- C: You need to repair the RAID-5 array and not reactivate it.
- E: Configuring Disk3 as a basic disk will not restore fault tolerance. Disk3 needs to be converted to dynamic disk so as to make it the same type as the other two disks.
- F: Reactivating the missing disk is not going to restore fault tolerance.

Reference:

Dan Holme and Orin Thomas, MCSA/MCSE Self-Paced Training Kit (Exam 70-290): Managing and Maintaining a Microsoft Windows Server 2003 Environment, p. 11.38  
Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 3  
Lisa Donald & Suzan Sage London & James Chellis, MCSA/MCSE: Windows(r) Server 2003 Environment Management and Maintenance: Study Guide, Sybex Inc, Alameda, 2003, Chapter 4, p. 203

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**QUESTION 23**

Exhibit

Physical disk	Drive	Data
1	C	Operating system
1	D	Shared folder
2	E	Paging file
2	F	Sales database

You are the network administrator for Certkiller .com. All network servers run Windows Server 2003. A server named Certkiller 2 functions as a file server. The hard disks in Certkiller 2 are configured as shown in the table displayed in the exhibit.

Users in the finance department store documents in the shared folder on Certkiller 2. Users report that they experience poor performance when they save files in the shared folder.

You need to use System Monitor to find out if the storage subsystem has a performance problem when users save files in the shared folder on Certkiller 2.

What should you do?

- A. Add the LogicalDisk performance object. Monitor the Free Megabytes counter on drive F.
- B. Add the LogicalDisk performance object. Monitor the Avg. Disk Queue Length counter on physical disk 1.

- C. Add the Paging File performance object. Monitor the % Usage counter.
- D. Add the Server performance object. Monitor the Bytes Total/sec counter.

Answer: B

Explanation: Disk Queue Length indicates the number of outstanding disk requests that are waiting to be processed. The Avg. Disk Queue Length counter forms part of the most useful performance data and will yield the necessary information regarding the storage subsystem.

Incorrect answers:

A: You will not get the necessary information for the purposes of this question.

C: The Paging File > %Usage counter indicates how much of the allocated page file is currently in use. If this number is consistently over 70 percent, you may need to add more memory or increase the size of the paging file. You should use the Paging File > %Usage counter value in conjunction with the Memory > Available Bytes and Memory > Pages/Sec counters to determine how much paging is occurring on your computer.

D: This will not yield the proper information needed in this case.

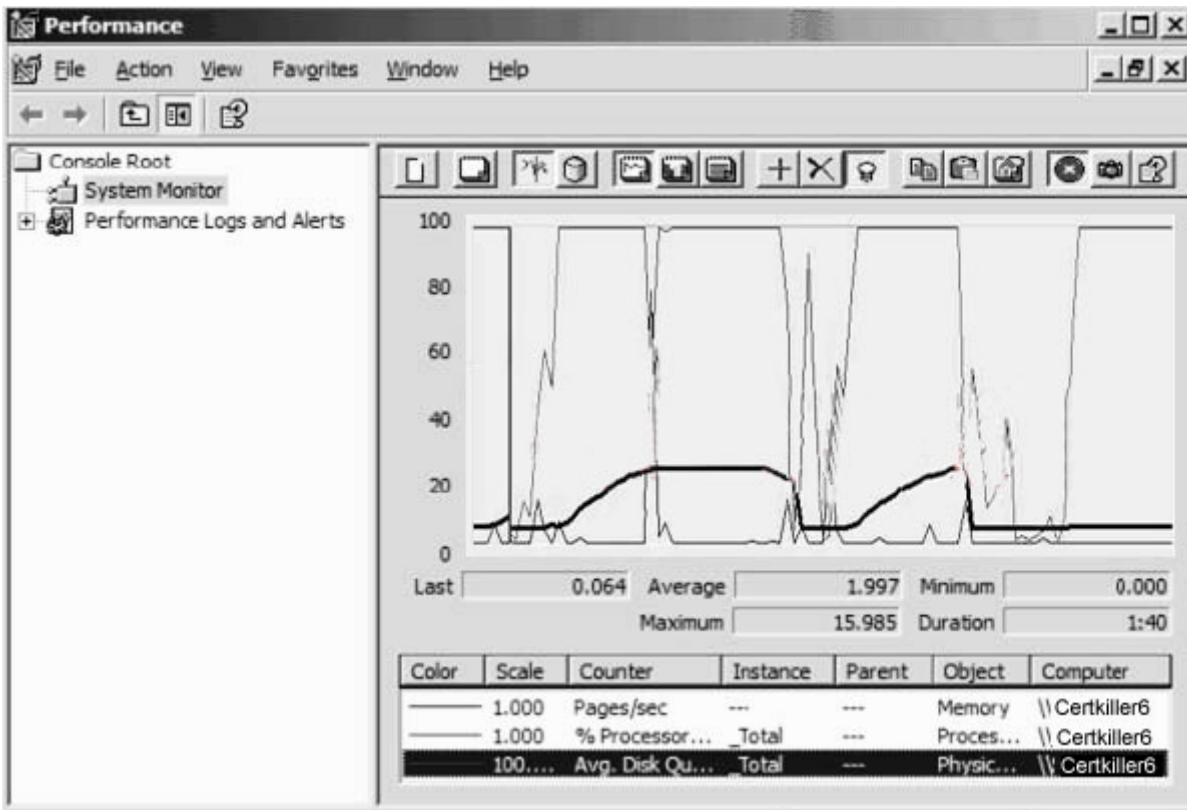
Reference:

Lisa Donald & Suzan Sage London & James Chellis, MCSA/MCSE: Windows(r) Server 2003 Environment Management and Maintenance: Study Guide, Sybex Inc, Alameda, 2003, Chapter 9, pp. 454, 460

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## QUESTION 24

Exhibit



You are the network administrator for Certkiller .com. All network servers run Windows Server 2003. A server named Certkiller 6 functions as a print server.

Users in the sales department print large reports and sales documents on several printers that ar

attached to Certkiller 6. Users report that during periods of peak activity, Certkiller 6 becomes unresponsive and it is slow to print documents. You use System Monitor to view the performance of Certkiller during a period of peak activity. The results are shown in the exhibit.

You need to improve the performance of Certkiller 6 when documents are printed during periods of peak activity.

What should you do?

- A. Configure a printer pool on Certkiller 6 by using an additional print device.
- B. Install an additional hard disk in Certkiller 6. Move the spool directory to the new hard disk.
- C. Increase the amount of physical RAM that is installed in Certkiller 6.
- D. Upgrade the processor in Certkiller 6.

Answer: B

Explanation: A common problem with printing in larger networks is that the spool folder gets so large that it fills up all available space on the disk drive. To get around this, move the spool folder to a different disk partition that has plenty of free space. Since the problem only occurs during periods of peak activity there is an indication that you need additional hard drive space so as to be able to print the large documents and reports. With network printing you need to spool the documents before printing as many a time there would be a print queue. Thus to improve Certkiller 6 performance, you need to install an additional hard disk and move the spooler to the new hard disk.

Incorrect answers:

- A: Making use of an additional print device will not solve the problem that the print server, Certkiller 6, is experiencing.
- C: This is not a matter of insufficient RAM that causes the problem but rather a problem caused by insufficient space to spool the documents.
- D: There is no need to upgrade the processor since it is not a processor that is causing the problem.

Reference:

Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Laura E. Hunter & Will Schmied, MCSA/MCSE: Exam 70-290: Managing and Maintaining a Windows Server 2003 Environment: Study Guide & DVD Training System, Syngress Publishing, Rockland, 2003, Chapter 7, p. 611

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### QUESTION 25

You are the network administrator for Certkiller .com. You administer a Windows Server 2003 computer named Certkiller 7. Users report that they experience poor performance when they access resources located on Certkiller 7. You suspect a disk bottleneck. You need to set up performance counters to monitor Certkiller 7.

You need to decide which performance objects to monitor.

Which two counters should you choose? (Each correct answer presents part of the solution. Select two.)

- A. LogicalDisk\% Idle Time
- B. PhysicalDisk\% Disk Time
- C. PhysicalDisk\Avg. Disk Queue Length
- D. Memory\Write Copies/sec
- E. Memory\Commit Limit

Answer: B, D

Explanation: The Memory: Pages/sec counter is used to measure memory usage. And with the PhysicalDisk\%Disk Time counter you will get an indication of whether the disk is being read quickly enough or not. These two counters would be essential if you suspect a disk bottleneck.

Incorrect answers:

A: This counter will not be as crucial to the requirements of this question.

C: The Physical Disk: Ave. Disk Queue Length counter is used to measure hard disk performance.

E: The Commit Charge group box is related to the Kernel Memory group box. The virtual memory details can be found here. (Remember, virtual memory is the maximum size of the page file.) The Peak item in this Commit Charge group box can exceed the physical memory value in the Physical Memory group box since the page file can be utilized. The Limit item displays the maximum memory available.

Reference:

Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Laura E. Hunter & Will Schmied, MCSA/MCSE: Exam 70-290: Managing and Maintaining a Windows Server 2003 Environment: Study Guide & DVD Training System, Syngress Publishing, Rockland, 2003, Chapter 9, p. 725

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**QUESTION 26**

You are the network administrator for Certkiller .com. All network servers run Windows Server 2003. A server named Certkiller 6 functions as a file server. The disk subsystem on Certkiller 6 is configured as shown in the following table.

Physical disk	Volume	Contents
1	C	Operating system
2	C	Mirror of operating system
3	F	Company data (RAID-5)
4	F	Company data (RAID-5)
5	F	Company data (RAID-5)
6	F	Company data (RAID-5)

You need to ensure that you are notified if there is less than 1 GB of available disk space for company data.

What should you do?

- A. Create a performance alert. Configure the alert to monitor LogicalDisk performance objects for volume F.
- B. Create a trace log. Configure the log to record disk input/output for volume F.
- C. Create a performance alert. Configure the alert to monitor the PhysicalDisk performance objects for physical disks 3, 4, 5, and 6.
- D. Create a trace log. Configure the log to record the LogicalDisk performance objects for volume F.

Answer: A

Explanation:

The purpose of an alert is to notify the system administrator that the system is not functioning according to standard operating environment. You can configure alerts to send a network message, start a program, run a script, or log an event in the event log if a performance threshold is reached. Thresholds are limits that you specify (for example, when a disk is 90 percent full), or in this case to monitor LogicalDisk performance object

for volume F for volume F: has the company data that is bound to grow larger in volume.

Incorrect answers:

B: You should be creating a performance alert, not a trace log. Furthermore, recording disk input and output will not yield the proper alert.

C: This option is halfway correct except that you need to monitor LogicalDisk performance object for volume F: and not PhysicalDisk performance objects for disks 3, 4, 5 and 6.

D: You should be creating a performance alert and not a trace log.

Reference:

Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Laura E. Hunter & Will Schmied, MCSA/MCSE: Exam 70-290: Managing and Maintaining a Windows Server 2003 Environment: Study Guide & DVD Training System, Syngress Publishing, Rockland, 2003, Chapter 9, p. 788

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### QUESTION 27

You are the network administrator for Certkiller . All network servers run Windows Server 2003. You administer a server named Certkiller 76. You need to configure Certkiller 76 to function as a streaming media server for Certkiller .com's content team. The content team wants Certkiller 76 to provide the fastest performance and the most available space possible. Redundancy is not important.

Certkiller 76 currently has three identical, unpartitioned hard disks available. You need to configure the disks to meet the content team's requirements.

What should you do?

- A. Create a simple volume on disk and then expand it to the other two disks.
- B. Create a mirrored volume that uses two of the disks.
- C. Create a RAID-5 volume that uses all three disks.
- D. Create a striped volume that uses all three disks.

Answer: D

Explanation: A striped volume is where data is written to 2 to 32 physical disks at the same rate. It offers maximum performance and capacity but no fault tolerance. Striped volumes use RAID-0, which stripes data across multiple disks. Striped volumes cannot be extended or mirrored, and do not offer fault tolerance. If one of the disks containing a striped volume fails, the entire volume fails. When creating striped volumes, it is best to use disks that are the same size, model, and manufacturer.

With a striped volume, data is divided into blocks and spread in a fixed order among all the disks in the array, similar to spanned volumes. Striping writes files across all disks so that data is added to all disks at the same rate.

Despite their lack of fault tolerance, striped volumes offer the best performance of all the Windows disk management strategies and provide increased I/O performance by distributing I/O requests across disks. For example, striped volumes offer improved performance when:

1. Reading from or writing to large databases.
2. Collecting data from external sources at very high transfer rates.
3. Loading program images, dynamic-link libraries (DLLs), or run-time libraries.

Thus the answer to the problem would be to create a striped volume that uses all three disks.

Incorrect answers:

A: This option will not meet the requirements.

B: Mirrored volumes are used for redundancy purposes.



C: A RAID-5 volume is where data is written to 3 to 32 physical disks at the same rate, and is interlaced with parity to provide fault tolerance for a single disk failure. However, since the problem mentions that redundancy is not important, it would be better to make use of a striped volume that uses all three disks.

Reference:

Dan Holme and Orin Thomas, MCSA/MCSE Self-Paced Training Kit (Exam 70-290): Managing and Maintaining a Microsoft Windows Server 2003 Environment, pp. 281, 11.49

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**QUESTION 28**

You are the network administrator for Certkiller .com. The network consists of a single Active Directory domain named Certkiller .com. All network servers run Windows Server 2003. A server named Certkiller 9 functions as an application server. The disks in Certkiller 9 are configured as shown in the following table.

Physical disk	Drive	Data	Size
0	C	Operating system	20 GB
1	D	Free space	20 GB

You purchase four additional 20-GB hard disks for Certkiller 9. You plan to install an inventory database on Certkiller 9. You estimate that you need a total of 60 GB of disk space to hold all the inventory data. You need to protect the data against the failure of any disk that contains either operating system data or inventory database data.

You need to create a new disk configuration on Certkiller 9.

Which two actions should you perform? (Each correct answer presents part of the solution. Select two.)

- A. Use one additional disk to create a mirror for drive C.
- B. Use two additional disks to create a striped set for drive C.
- C. Use three additional disks to create a RAID-5 volume for drive D.
- D. Use two additional disks to create a RAID-5 volume for drive C.
- E. Use one additional disk to create a mirror for drive D.
- F. Use three additional disks to create a striped set for drive D.

Answer: A, C

Explanation: A RAID-5 volume is where data is written to 3 to 32 physical disks at the same rate, and is interlaced with parity to provide fault tolerance for a single disk failure. Good read performance; good utilization of disk capacity; expensive in terms of processor utilization and write performance as parity must be calculated during write operations. Since Drive C holds the operating system, you should make use of an additional disk to create a mirror for drive C.

Incorrect answers:

B & F: Striped volumes are made up of two to 32 disks. Each disk should be the same size to efficiently use all space. It is possible to use different-sized disks, but the stripe size on every disk will be limited to the amount of free space on the smallest disk, so there will be space wasted on the larger disk(s). A striped set, whether making use of two or three additional disks, will not suffice in this case.

D: Two additional disks will not support RAID-5, you need three for Drive D and not Drive C.

E: You should create the mirror for Drive C and not drive D.

Reference:

Dan Holme and Orin Thomas, MCSA/MCSE Self-Paced Training Kit (Exam 70-290): Managing and Maintaining a Microsoft Windows Server 2003 Environment, pp. 281, 11.49

Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Laura E. Hunter & Will Schmied, MCSA/MCSE: Exam 70-290: Managing and Maintaining a Windows Server 2003 Environment: Study Guide & DVD Training System, Syngress Publishing, Rockland, 2003, Chapter 2, p. 81

## QUESTION 29

Exhibit

The screenshot shows the Security Policy console in Windows Server 2003. On the left, the 'Work Area' tree is expanded to 'Local Policies' > 'Security Options'. The main pane displays a list of policies with their current settings. The policy 'Device Unsigned driver installation behavior' is highlighted, showing its setting as 'Do not allow in...'. Other policies include 'Devices: Allow undock without having to log on' (Enabled), 'Devices: Allowed to format and eject removable media' (Administrators), 'Devices: Prevent users from installing printer drivers' (Enabled), 'Devices: Restrict CD-ROM access to locally logged-on user only' (Disabled), 'Device Restrict file process to locally logged-on user only' (Disabled), 'Domain controller: Allow server operators to schedule tasks' (Not Defined), 'Domain controller: LDAP server signing requirements' (Not Defined), 'Domain controller: Refuse machine account password changes' (Not Defined), 'Domain member: Digitally encrypt or sign secure channel data (always)' (Enabled), 'Domain member: Digitally encrypt secure channel data (when possible)' (Disabled), 'Domain member: Digitally sign secure channel data (when possible)' (Enabled), 'Domain member: Disable machine account password changes' (Disabled), 'Domain member: Maximum machine account password age' (30 days), 'Domain member: Require strong (Windows 2000 or later) session key' (Disabled), 'Interactive logon: Do not display last user name' (Disabled), 'Interactive logon: Do not require CTRL+ALT+DEL' (Disabled), 'Interactive logon: Message text for users attempting to log on' (Not Defined), 'Interactive logon: Message title for users attempting to log on' (Not Defined), 'Interactive logon: Number of previous logons to cache (in case domain controller i...' (10 logons), 'Interactive logon: Prompt user to change password before expiration' (14 days), 'Interactive logon: Require Domain Controller authentication to unlock workstation' (Disabled), 'Interactive logon: Require smart card' (Disabled), 'Interactive logon: Smart card removal behavior' (Lock Workstation), 'Microsoft network client: Digitally sign communications (always)' (Enabled), and 'Microsoft network client: Digitally sign communications (if server agrees)' (Disabled).

Policy	Security Setting
Devices: Allow undock without having to log on	Enabled
Devices: Allowed to format and eject removable media	Administrators
Devices: Prevent users from installing printer drivers	Enabled
Devices: Restrict CD-ROM access to locally logged-on user only	Disabled
Device Restrict file process to locally logged-on user only	Disabled
Device Unsigned driver installation behavior	Do not allow in...
Domain controller: Allow server operators to schedule tasks	Not Defined
Domain controller: LDAP server signing requirements	Not Defined
Domain controller: Refuse machine account password changes	Not Defined
Domain member: Digitally encrypt or sign secure channel data (always)	Enabled
Domain member: Digitally encrypt secure channel data (when possible)	Disabled
Domain member: Digitally sign secure channel data (when possible)	Enabled
Domain member: Disable machine account password changes	Disabled
Domain member: Maximum machine account password age	30 days
Domain member: Require strong (Windows 2000 or later) session key	Disabled
Interactive logon: Do not display last user name	Disabled
Interactive logon: Do not require CTRL+ALT+DEL	Disabled
Interactive logon: Message text for users attempting to log on	Not Defined
Interactive logon: Message title for users attempting to log on	Not Defined
Interactive logon: Number of previous logons to cache (in case domain controller i...	10 logons
Interactive logon: Prompt user to change password before expiration	14 days
Interactive logon: Require Domain Controller authentication to unlock workstation	Disabled
Interactive logon: Require smart card	Disabled
Interactive logon: Smart card removal behavior	Lock Workstation
Microsoft network client: Digitally sign communications (always)	Enabled
Microsoft network client: Digitally sign communications (if server agrees)	Disabled

You are the network administrator for Certkiller .com. The network consists of a single Active Directory domain named Certkiller .com. Certkiller .com's written security policy states that all computers are permitted to use only hardware that is listed on the Windows Server Catalog.

You need to change the policy settings for the Windows Server 2003 computer so that it complies with the written security policy.

Which policy setting should you modify? To answer, select the appropriate policy in the exhibit.

Answer:

Explanation: Devices: Unsigned Driver installation behavior

Driver signing is a method for marking or identifying driver files that meet certain specifications or standards. Windows Server 2003 uses a driver-signing process to make sure drivers are certified to work correctly with the Windows Driver Model (WDM) in Windows Server 2003. By modifying the Unsigned Driver installation behavior, you will be able to comply with company regulations regarding security policy.

Reference:

**QUESTION 30**

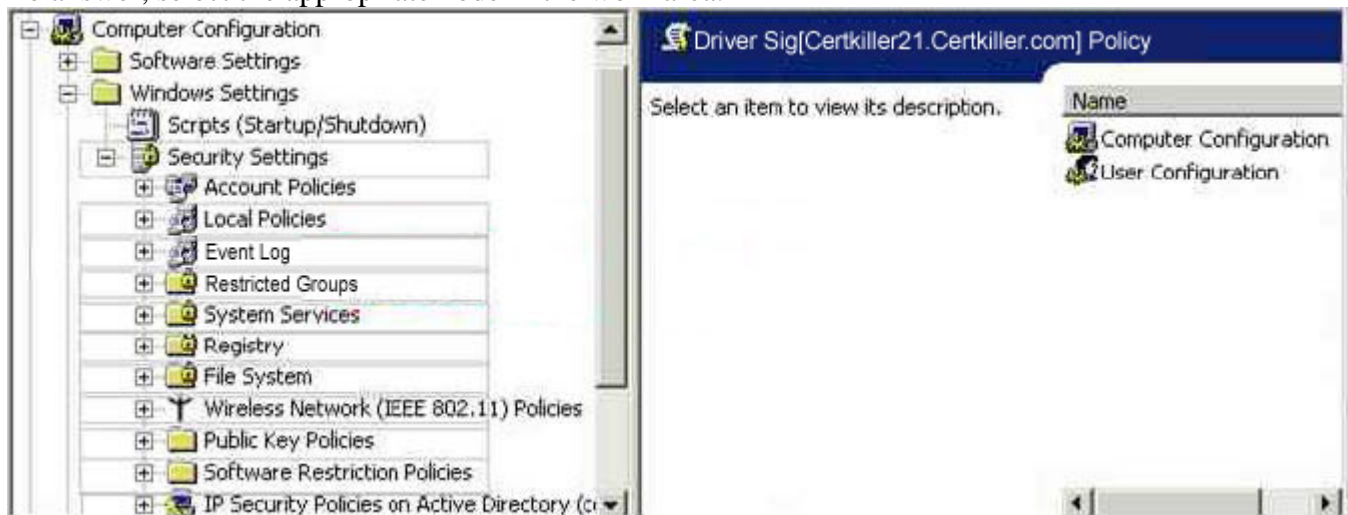
You are the network administrator for Certkiller .com. The network consists of a single Active Directory domain named Certkiller .com. All network servers run Windows Server 2003, and all client computers run Windows XP Professional.

A change in business rules requires you to configure hardware drivers on all network computers. You open the Group Policy Object Editor, as shown in the work area.

You need to configure Driver Signing in the treeview pane.

Which node should you configure?

To answer, select the appropriate node in the work area.



Answer:

Explanation: Select "Local Policies"

Every device that is attached to a computer requires software, known as a device driver, is to be installed on the computer to enable it to function properly. Every device requires a device driver to communicate with the operating system.

Device drivers that are used with the Microsoft Windows operating systems are typically provided by Microsoft and the device manufacturer. Each device driver and operating system file that is included with Windows has a digital signature. This setting can be located in the LOCAL POLICIES section.

Reference:

Dan Balter, MCSA/MCSE Managing and Maintaining a Microsoft Windows Server 2003 Environment Exam Cram 2 (Exam 70-290), Chapter 2

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