Exam: 070-291

Title: Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure
QUESTION 1
You are the network administrator for Certkiller.com. A Windows Server 2003 computer is configured as a print server for a print device that has a built-in network interface. Users of the print device report that they cannot print to it.
You confirm that the correct IP address and drivers are being used. You suspect that there is a problem with the MAC to IP address resolution on the print server.
You want to find out which MAC address the print jobs are being sent to.
Which command should you run on the print server?

A. net session
B. netstat.exe
C. netsh.exe
D. netcap.exe

Answer: D

Explanation: Netstcap.exe is a command line tool that could be used to capture the network traffic. A filter can be created to be used during the capture to determine the MAC address the print jobs are being sent to. The Network Monitor Capture Utility (Netcap.exe) can be used to capture network traffic in Network Monitor. Netcap provides capture abilities only from a command prompt; to open the resulting capture (.cap) files, you must use the full Network Monitor interface. Netcap is installed when you install the Support tools that are on the Windows XP CD-ROM. Netcap provides capture abilities that are similar to the version of Network Monitor that is included with the Windows Server products; however, you must use Netcap at a command prompt. Netcap installs the Network Monitor driver and binds it to all adapters when you first run the Netcap command.

Incorrect Options:
A: The net session command can be used to view the computer names and user names of users on a server, to see if users have files open, and to see how long each user's session has been idle. Net session manages server computer connections - used without parameters, net session displays information about all sessions with the local computer.
B: The netstat command is not a utility to use when troubleshooting NetBIOS names, but is used to show what ports your computer is listening on.: -R is used to reload your LMHOSTS file located in %systemroot%\system32\drivers\etc.. -r will show you which name resolutions have been answered via broadcasts, and which have been answered via a NetBIOS name server, -RR switch of the command utility refreshes your NetBIOS name with a configured WINS server.
C: The Network Shell utility (Netsh.exe) can perform a wide range of system configuration tasks. 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
QUESTION 2
You are the network administrator for Certkiller .com. The network consists of two subnets. All client computers run Windows XP Professional and are located in one subnet. All servers run Windows Server 2003. All servers are located in a central data center that uses a single IP subnet. The data center contains the hosts shown in the following table.

<table>
<thead>
<tr>
<th>Host name</th>
<th>Role</th>
<th>IP address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Router1</td>
<td>Router</td>
<td>10.10.1.1</td>
</tr>
<tr>
<td>Router2</td>
<td>Router</td>
<td>10.10.1.2</td>
</tr>
<tr>
<td>Certkiller 1</td>
<td>Domain controller</td>
<td>10.10.10.1</td>
</tr>
<tr>
<td>Certkiller 2</td>
<td>Domain controller</td>
<td>10.10.10.2</td>
</tr>
<tr>
<td>Certkiller 3</td>
<td>File server</td>
<td>10.10.11.1</td>
</tr>
<tr>
<td>Certkiller 4</td>
<td>File server</td>
<td>10.10.11.2</td>
</tr>
<tr>
<td>Certkiller 5</td>
<td>Mail server</td>
<td>10.10.255.1</td>
</tr>
</tbody>
</table>

You install Windows Server 2003 on new computer in the data center. The computer is named Certkiller 6 and will function as a database server. After installation, the database administrator makes some changes to the TCP/IP settings of Certkiller 6 as shown in the following table.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP address</td>
<td>10.10.1.3</td>
</tr>
<tr>
<td>Subnet mask</td>
<td>255.255.255.0</td>
</tr>
<tr>
<td>Default gateway</td>
<td>10.10.1.2</td>
</tr>
</tbody>
</table>

You discover that Certkiller 6 cannot communicate with any of the other servers. You test network connectivity on Certkiller 6 by using the ping command. When you attempt to ping Certkiller 1, you receive the following error message: "Destination host unreachable". You verify that all other servers in the data center can communicate with the other servers and client computers.

You need to ensure that Certkiller 6 can communicate with all computers in the network. What should you do?

A. Change the default gateway of Certkiller 6 to 10.10.1.1.
B. Change the subnet mask of Certkiller 6 to 255.255.0.0.
C. Change the IP address of Certkiller 6 to 10.10.10.3.
D. Change the IP address of Certkiller 6 to 10.10.11.3.

Answer: B

Explanation: Large networks are subdivided to create smaller subnetworks to reduce overall network traffic by keeping local traffic on the local subnet and sending all nonlocal traffic to the router. In order to create a subnetwork, we need to have a system for addressing that allows us to use the network ID and host ID within the class-based system. This is accomplished through the use of a subnet mask. To determine the appropriate custom subnet mask (typically referred to simply as subnet mask) for a network, you must first:

1. Determine the number of host bits to be used for subnetting.
2. Determine the new subnetted network IDs.
3. Determine the IP addresses for each new subnet.
4. Determine the appropriate subnet mask.

Incorrect Answers:
A: You need to assign the correct subnet mask to ensure connectivity.
C, D: The problem in this scenario is not a faulty IP address. It is the appropriate subnet mask that has to be determined to enable connectivity.

Reference:

QUESTION 3
You are the network administrator for Certkiller.com. The network consists of two subnets connected by a router. All computers have static IP addresses.
You add a new client computer named Certkiller 1 to subnet A. The relevant portion of the network is configured as shown in the exhibit.

Certkiller.com LAN

Certkiller1
IP: 192.168.27.5
Subnet mask: 255.255.255.224

The workstation administrator informs you that Certkiller 1 is incorrectly configured and cannot communicate with other hosts on the network.
You need to configure Certkiller 1 so that it can connect to all local and remote computers. What should you do?

A. Change the default gateway IP address of Certkiller 1 to 192.168.27.89.
B. Change the default gateway IP address of Certkiller 1 to 192.168.4.254.
C. Change the subnet mask of Certkiller 1 to 255.255.255.128.
D. Change the subnet mask of Certkiller 1 to 255.255.255.192.

Answer: C
Explanation: It is evident from the exhibit that the file server and Certkiller 1 have a different subnet mask. This is the reason why they cannot communicate with each other. You must therefore change the subnet mask of Certkiller 1 to 255.255.255.128.

Incorrect Answers:
A, B: The problem is not the gateway IP address that is faulty, but rather the subnet mask.
D: This option suggests the correct object that has to be changed, but it gives the wrong subnet mask.

Reference:

QUESTION 4
You are the network administrator for the branch office of Certkiller. The branch office network consists of 25 different subnets, each with a maximum of six computers. You plan to add no more than five subnets to the branch office network in the future. The central administrator has allocated the branch office the 192.168.2.0/24 network address.

You configure the Internet Protocol (TCP/IP) properties on a new server named Certkiller 1 as shown in the work area.

You need to ensure that Certkiller 1 can communicate with other servers on the network.

How should you configure the subnet mask on Certkiller 1?

To answer, type the appropriate subnet mask that should be used.

Answer: 255.255.255.248

Explanation: The network address is: 192.168.2.0/24, which means 11111111.11111111.11111110.0 in binary.
Therefore, you can use the last octet to configure the 30 subnets and 6 hosts in each subnet
You need only six host PCs. When you convert to binary, it is: 00000111. As a result, you use 3 bits.
This leaves 5 bits for the subnets 11111000 converted to decimal: 128+64+32+16+8=248, therefore the subnet mask will be: 255.255.255.248.
You can determine the number of subnets by: 2 ^ 5 - 2 = 30 subnets.
QUESTION 5

You are the network administrator for Certkiller .com. The network consists of a single Active Directory domain named Certkiller .com and a single subnet. All servers run Windows Server 2003. The network contains 150 client computers and 16 servers. All computers on the network use the 10.10.0.0/16 address scheme.

Dr Bill, your manager, instructs you to place the 16 servers into a separate subnet that uses the 192.168.10 public addressing scheme. You must plan for a maximum of 30 servers in the future.

You need to configure a new subnet mask. The subnet mask must allow a sufficient number of IP addresses for the existing servers and future growth. However, you want to conserve addresses as much as possible.

Which subnet mask should you use?

A. 255.255.255.224
B. 255.255.255.240
C. 255.255.255.248
D. 255.255.255.252
E. 255.255.255.254

Answer: A

Explanation: A 255.255.255.224 subnet mask gives five host address bits, so the maximum number of host addresses is $2^5 - 2 = 30$ host addresses. Thus option A suggests the only subnet mask that will allow for sufficient IP addresses in case of further growth, whilst still conserving as many current addresses as possible.


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QUESTION 6

You are the network administrator for Certkiller .com. The network consists of a single Active Directory name Certkiller .com. The relevant portion of the network is shown on the exhibit.
You need to configure a server named Certkiller A to use a valid static IP configuration. You need to enable Certkiller A to communicate with all hosts on the network and on the internet. You want Certkiller A to query the DNS server on the local subnet for name resolution. You also want to configure redundancy for name resolution.

What should you do?

To answer drag the appropriate IP addresses and Subnet masks to the appropriate places.
Select from these

- IP Addresses
  - 192.168.0.100
  - 192.168.0.110
  - 192.168.0.1
  - 192.168.0.2
  - 192.168.5.2
  - 192.168.5.100
  - 192.168.10.2

- Subnet Mask
  - 255.255.255.0
  - 255.255.0.0
  - 255.255.240.0

Answer:
### Explanation:
The Class C address 192.168.0.100 has to be the IP address to enable Certkiller A to communicate with all hosts on the network and on the internet. The subnet mask for this Class C address is 255.255.255.0. The default gateway should be 192.168.0.1. To configure redundancy for name resolution, configure the preferred DNS server/primary address as 192.168.0.2, and the alternate DNS server/secondary address as 192.168.5.2.

Reference:

### QUESTION 7
You are the network administrator for at the Mumbai office of Certkiller .com. The network contains a Windows Server 2003 computer named Certkiller 5. Certkiller 5 is a critical file server. Certkiller 5 is configured with a DHCP client reservation. Users can successfully download FTP documents from Certkiller 5. The DHCP server fails. Users report that they cannot access resources on Certkiller 5. You want to configure Certkiller 5 so that it is available even if it is unable to obtain or renew a lease from the DHCP server. What are two possible ways to achieve this goal? (Each correct answer presents a complete solution. Choose two.)
A. Configure a static IP address.
B. On the Alternate Configuration tab of the Internet Protocol (TCP/IP) properties, configure IP settings.
C. Configure the DHCP scope in the 169.254.0.1 - 169.254.255.254 range.
D. On the DHCP server, configure the DHCP 001 Resource Location Servers reservation option for Certkiller 5.

Answer: A, B

Explanation: Windows Server 2003 includes the Alternate Configuration feature. The Windows Server 2003 servers can be configured to use an alternate static IP configuration if a DHCP server is unavailable. When a DHCP client determines that the DHCP server is unavailable, it will automatically change over and also configure the TCP/IP stack with the static address information specified on the Alternate Configuration tab of the Internet Protocol (TCP/IP) properties.

Incorrect Answers:
C: Modifying the DHCP scope to the 169.254.0.1 - 169.254.255.254 range will still be reliant on the DHCP server.
D: Configuring the DHCP 001 Resource Location Servers reservation option for Certkiller 5 on the DHCP server will not ensure that Certkiller 5 will receive an IP address or have the IP address renewed.

Reference:

QUESTION 8
A server named Certkiller S is configured as a DHCP server and has been authorized. The Telnet service is started on Certkiller S.
You discover that the DHCP Server service on Certkiller D has stopped providing IP addresses to DHCP client computers on the network. You log to a client computer named Certkiller 1. The administrative tools are installed on Certkiller 1. You open the DHCP console and attempt to connect to Certkiller D. You receive the following error message: "Cannot find the DHCP Server." You are able to connect to Certkiller D by running the ping command.
You need to ensure that you can connect to the DHCP Server service on Certkiller D by using the DHCP console.
What should you do on Certkiller 1?

A. Establish a Telnet session to Certkiller D. Run the net start dhcp command.
B. Establish a Telnet session to Certkiller D. Run the net start dhcpserver command.
C. Establish a Telnet session to Certkiller D. Run the ipconfig /renew command.
D. Run the netsh dhcp server\ Certkiller D show server command.

Answer: B

Explanation: You can start the DHCP Server service by executing the following command, at the command line on Certkiller 1: net start dhcpserver.
prompt. Net Start Dhcpserver
Telnet is a protocol that enables an Internet user to log on to and enter commands on a remote computer linked to the Internet, as if the user were using a text-based terminal directly attached to that computer. Telnet is part of the TCP/IP suite of protocols. The term telnet also refers to the software (client or server component) that implements this protocol.
Given the fact that you can ping Certkiller D you should then establish a Telnet session to Certkiller D and then run the appropriate command.
Reference:

QUESTION 9
You are the network administrator for Certkiller .com. A Windows Server 2003 computer is configured as a print server for a print device that has a built-in network interface. Users of the print device report that they cannot print to it.
You confirm that the correct IP address and drivers are being used. You suspect that there is a problem with the MAC to IP address resolution on the print server.
You want to find out which MAC address the print jobs are being sent to.
Which command should you run on the print server?

A. net session
B. netstat.exe
C. netsh.exe
D. netcap.exe

Answer: D

Explanation: Netstcap.exe is a command line tool that could be used to capture the network traffic. A filter can be created to be used during the capture to determine the MAC address the print jobs are being sent to. The Network Monitor Capture Utility (Netcap.exe) can be used to capture network traffic in Network Monitor. Netcap provides capture abilities only from a command prompt; to open the resulting capture (.cap) files, you must use the full Network Monitor interface. Netcap is installed when you install the Support tools that are on the Windows XP CD-ROM. Netcap provides capture abilities that are similar to the version of Network Monitor that is included with the Windows Server products; however, you must use Netcap at a command prompt. Netcap installs the Network Monitor driver and binds it to all adapters when you first run the Netcap command.
Incorrect Options:
A: The net session command can be used to view the computer names and user names of users on a server, to see if users have files open, and to see how long each user's session has been idle. Net session manages server computer connections - used without parameters, net session displays information about all sessions with the local computer.
B: The netstat command is not a utility to use when troubleshooting NetBIOS names, but is used to show what ports your computer is listening on.: -R is used to reload your LMHOSTS file located in %systemroot%\system32\drivers\etc., -r will show you which name resolutions have been answered via broadcasts, and which have been answered via a NetBIOS name server, -RR switch of the command utility
refreshes your NetBIOS name with a configured WINS server.

C: The Network Shell utility (Netsh.exe) can perform a wide range of system configuration tasks. 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

QUESTION 10
Network Topology Exhibit:
You are the network administrator for Certkiller .com. The network consists of a single Active directory domain named Certkiller .com. The domain contains a Microsoft Internet Security and Acceleration (ISA) Server computer named Certkiller ISA and a DNS server named Certkiller DNS. Both servers are Windows Server 2003 computers.

The company redesigns its network addressing, and you change the static IP addresses for Certkiller ISA to the addresses shown in the Network exhibit.

Certkiller DNS contains the new host (A) resource records for Certkiller ISA.

A Windows Server 2003 file server named Certkiller ServerA is on the 10.10.11.0 subnet. Certkiller ServerA has antivirus software installed the checks hourly for new virus definitions on a central antivirus server named WWW in the perimeter network. WWW is the Web server, and you can also access it through a Web page to perform manual virus definition updates.

You find out about a new virus threat and want to immediately download the new update to Certkiller ServerA.

You cannot access the WWW virus update Web site when you attempt to download a new virus update. The static TCP/IP configuration on Certkiller ServerA uses DNSI as the preferred DNS server.

You confirm that Certkiller ISA is configured properly. On Certkiller ServerA, you view the Internet Explorer LAN settings that are shown in the LAN Settings exhibit.

You want to allow Certkiller ServerA to connect to WWW.

What should you do?

A. On Certkiller ServerA, from a command prompt, run the ipconfig /flushdns command.
B. On Certkiller ServerA, in the LAN settings in Internet Explorer, select the Automatically detect settings check box.
C. On Certkiller ISA, from a command prompt, run the ipconfig /flushdns command.
D. On Certkiller ISA, from a command prompt, run the ipconfig/registerdns command.

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Answer: A

Explanation: Running the ipconfig /flushdns command will flush and reset the DNS resolver cache which is necessary to allow connection. Run this command on Certkiller ServerA to connect to WWW.

Incorrect answers:
B: Selecting the "Automatically detect settings" checkbox is not going to allow Certkiller ServerA to connect to WWW.
C: The ipconfig /flushdns command flushes and resets the DNS resolver cache. This is not what is necessary.
D: The ipconfig /registerdns command refreshes all DHCP leases and registers any related DNS names. This option is available only on Windows 2000 and newer computers that run the DHCP Client service. This is not going to allow Certkiller ServerA to connect to WWW when it is run on Certkiller ISA.

Reference:

QUESTION 11


One of the servers is configured as a DHCP server. The DHCP server is configured with a single scope. You are configuring a new client computer named Certkiller 1 on the network. You connect the network cable on Certkiller 1 and attempt to connect to a server on the network. The connection fails. You open a command prompt on Certkiller 1 and attempt to renew Certkiller 1's IP address. You receive the following response.

A client computer named Certkiller 2 can connect to the network. On Certkiller 2, you run the ipconfig /renew command. Client2 receives an IP address renewal from the DHCP server.

You need to ensure that Certkiller 1 receives an IP address configuration from the DHCP server. What should you do?

A. Configure Certkiller 1 with a static IP address.
B. Restart the DHCP service on the DHCP server.
C. Restart Certkiller 1.
D. Add additional IP addresses to the scope on the DHCP server.

Answer: C

Explanation: It is probable that the TCP/IP stack has a problem because the computer is unable to send
You need to enable Client CK1 to connect to other computers on the network and to the Internet. How could you change the IP configuration of Client CK1?

A. Change the subnet mask to 255.255.240.0.
B. Change the default gateway to 192.168.5.100.
C. Add a primary DNS suffix of Certkiller.com.
D. Configure the computer to automatically lease an IP address from the DHCP service.

Answer: D

Explanation: The client computers on the subnet use DHCP to obtain their IP configurations. It is probable that Client CK1 has a static IP address, and therefore cannot obtain a valid IP configuration from the DHCP server.

Incorrect Answers:
A: By changing the subnet mask you will not ensure that Client CK1 will connect to other computers and the Internet.
B: Changing the default gateway to 192.168.5.100 will not enable Client CK1 LAN connection.
C: Adding a primary DNS suffix means that only domain names listed in that window will be tried for resolution purposes. Both the connection-specific and primary DNS suffix are ignored.

Reference:
Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Chad Todd and Laura Hunter, Implementing, Managing, and Maintaining a Windows Server 2003 Network Infrastructure Guide & DVD Training System, p. 515

QUESTION 13
You are the network administrator for Certkiller .com. You work at the company’s main office. The company has 400 branch offices. Each branch office has from two to five Windows 2000 Professional computers. One computer in each branch office is configured with a shared dial-up connection. One of the branch offices has only two Windows 2000 Professional computers, which are named Certkiller 1 and Certkiller 2. The users in this branch office report that the shared dial-up connection on Certkiller 1 no longer functions.

You investigate and find out that Certkiller 2 can connect to shared folders on Certkiller 1. You also find out that Certkiller 1 automatically connects to the network at the main office whenever the user on Certkiller 1 attempts to access resources located on the main office network. However, Certkiller 2 is unable to connect to resources on the main office network.

You need to ensure that both client computers can connect to resources on the main office network. What should you do?

A. Start Internet Connection Sharing on Certkiller 1.
B. Configure the shared dial-up connection on Certkiller 1 so that automatic dial-up is enabled.
C. Configure Certkiller 2 to use DHCP to obtain IP addressing information.
D. Configure Certkiller 2 to use Certkiller 1 for DNS name resolution.

Answer: C.

Explanation: The problem is most likely caused by an incorrect or non-existent default gateway setting on Certkiller 2. If you configure Certkiller 2 to use DHCP to obtain IP addressing information, Certkiller 2 will receive the correct settings from the ICS service on Certkiller 1.

Incorrect Answers:
A: The question refers to a shared dial-up connection on Certkiller 1 not working. If the dial-up connection is shared, then Internet Connection Sharing is enabled already.
B: The question states that Certkiller 1 automatically connects to the network at the main office whenever the user on Certkiller 1 attempts to access resources located on the main office network. This indicates that automatic dial-up is already configured.
D: Certkiller 1 is not a DNS server. The ICS service has a DNS proxy that would pass DNS requests to whichever DNS server Certkiller 1 is using.

Reference:

QUESTION 14
You are the network administrator for Certkiller .com. All client computers on the network run Windows NT Workstation 4.0.

The new written company network policy requires you to change all network computers from static IP
configuration to dynamically assigned IP configuration. The network policy requires a Windows Server 2003 DHCP server to dynamically assign the addresses. You anticipate the possibility that some of the client computers in the company will be overlooked and will continue to use static IP configuration. If this occurs, you want to ensure that the DHCP server will not lease an address that is already statically configured on another computer.

You want to configure the DHCP servers to lease only IP addresses that are not already in use. Also, you do not want to increase network traffic any more than necessary, and you want to minimize the amount of time DHCP clients wait for an IP address lease.

What should you do?

A. Configure the DHCP server Conflict detection attempts to 1.
B. Configure the DHCP server Conflict detection attempts to 3.
C. Configure client reservations for each client computer MAC address.
D. Activate and reconcile the scopes.

Answer: A

Explanation: When conflict detection attempts are set, the DHCP server uses the Packet Internet Groper (ping) process to test available scope IP addresses before including these addresses in DHCP lease offers to clients. A successful ping means that the IP address is in use on the network. This results in the DHCP server not offering to lease the address to a client.

If the ping request fails and times out, it indicates that the IP address is not in use on the network. In this case, the DHCP server offers to lease the address to a client. Each additional conflict detection attempt delays the DHCP server response by a second while waiting for the ping request to time out. This in turn increases the load on the server. A value of no greater than two (2) is recommended for ping attempts.

Incorrect Answers:
B: Due to the latency involved in ping attempts, the higher the conflict detection value is set, the longer the lease process will be for every client that uses the DHCP server.
C: Configuring client reservations for each client computer MAC address will involve a physical visit to each and every client computer if you do not ping it successfully.
D: The scope would already be activated in this scenario.
Reference:
Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Chad Todd and Laura Hunter, Implementing, Managing, and Maintaining a Windows Server 2003 Network Infrastructure Guide & DVD Training System, pp. 208-209

QUESTION 15

A server named Certkiller 1 functions as a DHCP and DNS server. All client computers are configured to use Certkiller 1 for name resolution. All DNS zones on Certkiller 1 are enabled for DNS dynamic updates. Certkiller’s written security policy states that, when possible, the computer account for each client computer should be the owner of its own DNS host record.

A server named Certkiller 18 contains antivirus server software. Certkiller 18 must be able to contact client computers by using fully qualified domain names (FQDNs) to propagate virus definition updates.
You need to ensure that Certkiller 18 can resolve FQDNs for all client computers on the network.
Which option should you modify on Certkiller 1?

A. The Dynamically update DNS A and PTR records only if requested by the DHCP clients check box.
B. The Always dynamically update DNS A and PTR records check box.
C. The Discard A and PTR records when lease is deleted check box.
D. The Dynamically update DNS A and PTR records for DHCP clients that do not request dynamic updates (for example, clients running Windows NT 4.0) check box.

Answer: D

Explanation: Dynamically Update DNS A And PTR Records For DHCP Clients That Do Not Request Updates - This checkbox lets you handle these older clients graciously by making the updates using a separate mechanism. When checking this check box you will ensure that Certkiller 18 can resolve FQDNs for all client computers on the network under the given circumstances and the role that Certkiller 1 plays.
Incorrect answers:
A: Dynamically Update DNS A And PTR Records Only If Requested By The DHCP Clients - This radio button (which is on by default) tells the DHCP server to register the update only if the DHCP client asks for DNS registration. When this button is active, DHCP clients that aren't hip to DDNS won't have their DNS records updated. However, Windows 2000, XP, and Server 2003 DHCP clients are smart enough to ask for the updates.
B: Always Dynamically Update DNS A And PTR Records - This radio button forces the DHCP server to register any client to which it issues a lease. This setting may add DNS registrations for DHCP-enabled devices that don't really need them, like printer servers; however, it allows other clients (like Mac OS, Windows NT, and Linux machines) to have their DNS information automatically updated. This is not what is required.
C: Discard A And PTR Records When Lease Is Deleted - When a DHCP lease expires, what should happen to the DNS registration? Obviously, it would be nice if the DNS record associated with a lease vanished when the lease expired; when this checkbox is checked (as it is by default), that's exactly what happens. If you uncheck this box, your DNS will contain entries for expired leases that are no longer valid; when a particular IP address is reissued on a new lease, the DNS will be updated, but in between leases you'll have incorrect data in your DNS-always something to avoid.

Reference:

QUESTION 16
You are the network administrator for Certkiller .com. The network consists of a single Active Directory domain named Certkiller .com.
You install a new client-server application on a Windows Server 2003 computer named Certkiller 2. Certkiller 2 is not a member of the domain. Certkiller 2 has static IP address 192.168.6.23. You install the client software on two Windows XP Professional domain computers in order to test access to the application on Certkiller 2. You plan to install the client software on 270 additional Windows XP Professional computers.
The client software must be able to resolve to Certkiller 2 by using the fully qualified domain name (FQDN) Certkiller 2. Certkiller .com. A Windows Server 2003 computer named Certkiller D is the DNS server and has the IP address 192.168.6.1. The Certkiller .com zone is configured to accept only secure updates. When you run the ping command to 192.168.6.23, you receive valid replies. When you attempt to run the
client software on the two test computers, the software cannot locate Certkiller 2 and terminates. You need to correct this problem with the minimum amount of administrative effort. What should you do?

A. From a command prompt on Certkiller 2, run the ipconfig /registerdns command.
B. On each of two test computers, type the following line in the Hosts file:
Certkiller 2. Certkiller .com 192.168.6.23 #pre
C. Create an OU named ApplicationServersOU.
Create a computer account named Certkiller 2 in ApplicationServersOU.
Set the Primary DNS Suffix Group Policy setting on an ApplicationServersOU GPO to Certkiller .com
Restart Certkiller 2.
D. On Certkiller D, enter a host (A) record for Certkiller 2 that displays Certkiller 2's IP address as 192.168.6.23.
On Certkiller 2, in the Computer Name Changes dialog box in System Properties, enter Certkiller .com as the primary DNS suffix of the computer.
Restart Certkiller 2.

Answer: D

Explanation: Every computer in a Windows Server 2003 network can be assigned a primary DNS suffix to be used in name resolution and name registration. The primary DNS suffix is specified on the Computer Name tab of the properties dialog box in My Computer. The primary DNS suffix is also known as the primary domain name and the domain name.
The full computer name is a type of FQDN. The same computer can be identified by more than one FQDN, but only the FQDN that concatenates the host name and the primary DNS suffix represents the full computer name. If you can ping a computer by IP address but not by name, the computer is missing an A resource record in DNS. You can attempt to remedy this situation by executing the Ipconfig /registerdns command at that computer.
Therefore, if you want to run client software successfully on the two computers under the circumstances as given in the question, option D would be the answer.
Incorrect answers:
A: If you can ping a computer by IP address but not by name, the computer is missing an A resource record in DNS. You can attempt to remedy this situation by executing the Ipconfig /registerdns command at that computer. However, this is only part of the solution.
B: This option will not allow you to run client software on the two computers.
C: This option suggests too much administrative effort to be done.
E: This will not enable you to run client software on the two computers in the given circumstances.
Reference:
James Chellis, Paul Robichaux and Matthew Sheltz, MCSA/MCSE: Windows Server 2003 Network Infrastructure Implementation, Management, and Maintenance Study Guide, p. 4-5, 4-34
B: Manage DHCP Relay Agent.(3 Questions)
are configured with static IP addresses. All client computers run Windows XP Professional. All client
computers are configured as DHCP clients.
Certkiller has a main office and one branch office. The offices are separated by a router. A DHCP server
is deployed in each office.
One of the DHCP servers shuts down unexpectedly. It takes four hours to repair the server. During that
time, several mobile users connect their portable computers to the network and report that they cannot
connect to shared resources on the network.
After the server is repaired, you create a new scope on each DHCP server that includes IP addresses for
the other office. You activate the scopes.
You test the new DHCP configuration by shutting down the DHCP server in the main office. You find out
that the client computers in the main office are not receiving IP addresses from the DHCP server in the
branch office.
You need to ensure that when the DHCP server in one office fails, the client computers will receive a
correct IP address configuration from the DHCP server in the other office.
What are two possible ways to achieve this goal? (Each correct answer presents a complete solution.
Choose two)

A. Configure the router between the offices to forward BOOTP broadcasts.
B. Configure the DHCP server in each office with a DHCP scope that includes the same IP addresses as the
DHCP server in the other office. Activate the scope.
C. Configure the DHCP server in each office with an additional network adapter.
Connect each new network adapter to the local network
Assign an IP address from the other office's network to each new network adapter.
D. Install and configure a DHCP relay agent in each office.

Answer: A, D

Explanation: In a subnetted environment, routers and remote computers can be configured to be DHCP Relay
Agents, which forward DHCP information between subnets. The router forwards requests for IP address
configuration assignments to the remote DHCP Server. The DHCP Relay Agent is typically configured on a
network segment where there is no DHCP server. The network segments are normally on the other end of a non
2131 compliant router from a DHCP server. The DHCP Relay Agent assists in passing on DHCP and BOOTP
broadcast messages over routers which do not support the passing on of these messages. The DHCP server
configured in the DHCP Relay Agent's properties through the DHCP Relay Agent performs the DHCP lease
process. The server specified apply to each network interface that the relay agent is attached to.
Instead of using the approach just outlined, you can configure the router between the offices to forward BOOTP
broadcasts.
Incorrect Answers:
B: Configuring a scope and activating it to include the same IP addresses as the DHCP server in the other office
will not work. This will be akin to having two places with the same address.
C: The question states that you need to make sure that in case of failure the client computers will receive a
correct IP address configuration from the DHCP server in the other office. You thus do not have to add in
additional network adapters and DHCP servers.
Reference:
Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Chad Todd and Laura Hunter, Implementing, Managing,
QUESTION 18

A server named Certkiller 1 functions as a DHCP server, and a server named Certkiller 2 functions as a DNS server. A relevant portion of the network is shown in the Network exhibit.

You configure Certkiller 1 to distribute IP addresses to all of the client computers on the 10.9.7.0 subnet. The DHCP server scope settings are shown in the DHCP exhibit.

All users of client computers on the 10.9.7.0 subnet report that they can see each other's computers in My Network Places but cannot access the Internet or the 10.9.8.0 subnet. Users of client computers in the 10.9.7.0 network cannot access servers on either subnets.
Users of client computers on the 10.9.8.0 subnet can access servers on both subnets and can access the Internet. All servers use static IP addresses.
You need to ensure that all client computers can access the Internet.
What should you do?

A. On Certkiller 2, configure the DHCP Relay Agent.
B. On Certkiller 2, add a host (A) record for Certkiller 1 at address 10.9.8.91.
C. On Certkiller 1, authorize DHCP.
D. On Certkiller 1, activate the 10.9.7.0 scope.
E. On Certkiller 1, disable the 001 Microsoft Disable Netbios Option.

Answer: A

Explanation:
DHCP Relay Agent is a routing protocol that allows client computers to obtain an address from a DHCP server on a remote subnet. Typically, DHCP clients broadcast DHCP Discover packets that are then received and answered by a DHCP server on the same subnet. Because routers block broadcasts, DHCP clients and servers must normally be located on the same physical subnet. DHCP relay agents intercept DHCP Discover packets and forward them to a remote DHCP server whose address has been preconfigured. Since Certkiller 1 contains the DHCP server and the Internet is accessed through the router, you should configure the DHCP Relay Agent on Certkiller 2 so as to ensure that all the client computers can access the Internet.
Incorrect answers:
B: Adding a host (A) record for Certkiller 1 at address 10.9.8.91 on Certkiller 2 will not ensure accessibility to the Internet for all the client computers.
C: The problem is not a matter of an Unauthorized DHCP server.
D: There is no need to activate the 10.0.7.0 scope on Certkiller 1. This will not solve the problem.
E: Disabling the 001 Microsoft Disable Netbios Option on Certkiller 1 will not solve the problem of accessibility to the Internet for all client computers.
Reference:
J. C. Mackin, Ian McLean, MCSA/MCSE self-paced Training Kit (exam 70-291): Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure, Chapter 9, pp. 63-64

QUESTION 19
You are the network administrator for Certkiller .com. The network contains three Windows Server 2003 computers and 220 Windows XP Professional computers. No servers currently have Routing and Remote Access installed.
You need to add 50 additional computers to the network. You want to split the network into two segments, using two different subnets. A diagram of the planned network is shown in the exhibit.
All client computers must be able to connect to each other.
You need to minimize additional network services. You also need to ensure that the computers can obtain addresses from the DHCP service.

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

A. Configure Routing and Remote Access on Certkiller SrvA.
B. Configure Routing and Remote Access on Certkiller SrvB.
C. Configure Routing and Remote Access on Certkiller SrvC.
D. Configure a DHCP relay agent on Certkiller SrvA.
E. Configure a DHCP relay agent on Certkiller SrvB.
F. Configure a DHCP relay agent on Certkiller SrvC.

Answer: C, F

Explanation: Certkiller SrvC is connected to both network segments and can therefore act as a router. To enable this, configure Routing and Remote Access on Certkiller SrvC.
To enable the clients on the 192.168.1.0 subnet to obtain their TCP/IP configurations from the DHCP server, you need to configure a DHCP relay agent on the 192.168.1.0 subnet. The DHCP relay agent service is part of Routing and Remote Access; therefore, you need to configure a DHCP relay agent on Certkiller SrvC.
Incorrect Answers:
A: Certkiller SrvA will not be a router and therefore does not need the Routing and Remote Access service.
B: Certkiller SrvB will not be a router and therefore does not need the Routing and Remote Access service.
D: Certkiller SrvA won't have the Routing and Remote Access service, so it won't be a DHCP relay agent.
E: The relay agent needs to be configured on the 192.168.1.0 subnet.
Reference:
QUESTION 20
You are a network administrator for Certkiller’s main office in Chicago. The main office contains 3,000 desktop computers.

A Windows Server 2003 computer named Server CK1 4 is the DHCP server for the network. The hardware configuration of Server CK1 4 is shown in the following table.

<table>
<thead>
<tr>
<th>Processor</th>
<th>One, 600 Mhz</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAM</td>
<td>512 MB</td>
</tr>
<tr>
<td>Hard disk 0</td>
<td>SCSI, with C: and D: partitions, 15 GB each</td>
</tr>
<tr>
<td>Hard disk 1</td>
<td>SCSI with E: partition, (empty), 30 GB</td>
</tr>
<tr>
<td>Network adapter</td>
<td>100 Mbps</td>
</tr>
</tbody>
</table>

Server CK1 4 is capable of supporting two processors.

Nine hundred users from a branch office relocate to the main office in Chicago. The help desk reports that client computer IP addresses take an unusually long time to renew. You confirm that network utilization is within acceptable limits. You notice that in the DHCP Server performance object, the milliseconds per packet (Avg.) counter is 40 percent higher than the baseline.

You run System Monitor to baseline Server CK1 4 during normal business hours. You observe the performance results:

<table>
<thead>
<tr>
<th>Object</th>
<th>Counter</th>
<th>Instance</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>% Processor time</td>
<td>Total</td>
<td>32</td>
</tr>
<tr>
<td>Memory</td>
<td>Pages/sec</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>System</td>
<td>Processor Queue Length</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Logical disk</td>
<td>% Disk time</td>
<td>C</td>
<td>87</td>
</tr>
<tr>
<td>Logical disk</td>
<td>% Disk time</td>
<td>D</td>
<td>2</td>
</tr>
<tr>
<td>Logical disk</td>
<td>% Disk time</td>
<td>E</td>
<td>3</td>
</tr>
</tbody>
</table>

You want to improve the performance of Server CK1 4. What should you done on Server CK1 4?

A. Move the database path to drive E.
B. Move the database path to drive D.
C. Increase RAM to 1024 MB.
D. Add an additional processor.

Answer: A
Explanation: According to the table, the operating system and the database are on the same SCSI disk 0. From the performance results you can see that the % Disk Time is above 50%. You can move the database to disk E (because it's empty) to divide the disk load. Deviations from your baseline provide the best indicator of performance problems. You can also check for various types of bottlenecks by monitoring the counters for each subsystem and checking them against the recommended thresholds.

Incorrect Answers:
B: Drive D is already populated. Shifting the database path to Drive D will thus not improve Server CK1 4 performance.
C: When increasing the RAM to 1024 MB you will not be improving the performance on Server CK1 4 because the problem is not a memory problem, but rather a problem of non-renewal or slow renewal of IP addresses.
D: By adding in an additional processor you are not addressing the problem.

Reference:
Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Chad Todd and Laura Hunter, Implementing, Managing, and Maintaining a Windows Server 2003 Network Infrastructure Guide & DVD Training System, p. 166

QUESTION 21
You are the network administrator for Certkiller .com. The network consists of a single subnet. A Windows Server 2003 computer named Certkiller 3 functions as a DHCP server. Certkiller 3 leases IP addresses in the 10.11.0/24 range to desktop client computers. There are 12 client reservations for other servers and network printers. You have configured several detailed scope and server options.
If Certkiller 3 fails, you want to have a contingency plan that will allow you to use a domain controller named DC2 as a DHCP server as quickly as possible. You install DHCP on DC2 without any configuration and stop the DHCP Server service.
You want to list the tasks that are required to back up Certkiller 3 and the tasks that are required to restore the backup to DC2. A backup age of 24 hours or less is acceptable.
If Certkiller 3 fails, which set of tasks is required to enable DC2 to replace Certkiller 3 as the DHCP server?

A. On Certkiller 3: Schedule the Backup utility to back up the System State Data to tape every 24 hours. On DC2: perform non-authoritative System State restore. Using the Services console, start the DHCP Server service. Authorize DHCP. Reconcile the database.
B. On Certkiller 3: Use the Backup utility to schedule a tape backup of the DHCP database every 24 hours. On DC2: Restore the tape backup of the DHCP database to a folder. Using the DHCP console, restore the backup from the backup from the same folder. From the command prompt, type net start dhcpserver. Authorize DHCP.
C. On Certkiller 3: schedule the Backup utility to back up the System State Data to tape every 24 hours. On DC2: Perform an authoritative System restore. Manually recreate the server and scope options that were on Certkiller 3. From a command prompt, type start dhcpserver. Authorize DHCP.
D. On Certkiller 3: Use the DHCP console to perform a DHCP backup every 24 hours. Copy the backup to a network share that is accessible by DC2. On DC2: copy the backup to a local folder. Using the DHCP console, restore the backup from the local folder. From a command line, type net start dhcp. Authorize DHCP. Recreate the 12 client reservations.

Answer: B
Explanation: The Windows Server 2003 Backup utility includes a scheduling feature that can be utilized to schedule a tape backup of the DHCP database for every 24 hours. This can be performed using the Backup tab or the Schedule Jobs tab of the Backup utility. The net start dhcpserver command would start the DHCP Server service on DC2.

Incorrect Answers:
A: A system state restore is not necessary as this will only provide a backup of the configuration details. You would need a backup of the DHCP database if you are to have DC2 take over the function of Certkiller 3 in case of failure.
C: Performing an authoritative system restore and manually recreating the Certkiller 3 server and scope options will not work as you need to restore the DHCP database to a folder using the DHCP console and then restore the backup from a backup from the same folder.
D: On DC2 you do not need to recreate the 12 client reservations.

Reference:
The Microsoft MCSA/MCSE Book for Exam 70-290: Managing and Maintaining a Microsoft Windows Server 2003 Environment, Chapter 7, lessons 1, 2 and 3.

QUESTION 22
A domain controller named Certkiller 1 functions as an application server and also provides DHCP services and file services. A Windows Server 2003 computer named Certkiller 2 provides DNS services. You add a new server named Certkiller 3 to the network as a member server in the domain. You want Certkiller 3 to provide DHCP services instead of Certkiller 1. The DHCP scope that is configured on Certkiller 1 is shown in the exhibit.
The Exhibit is a DHCP screen on a server with this:

You need to prevent IP address conflicts and minimize network changes.
What should you do?
A. Create a new DHCP scope on Certkiller 3 that has a starting address of 192.168.0.20 and an ending address of 192.168.0.254
Deactivate the DHCP service on Certkiller 1 and then authorize the DHCP service on Certkiller 3. Activate the new DHCP scope on Certkiller 3
B. Create a new DHCP scope on Certkiller 3 that has a starting address of 192.168.0.10 and an ending address of 192.168.0.254
Deactivate the new DHCP scope on Certkiller 3
C. Back up the DHCP database on Certkiller 1 to a local drive.
Stop the DHCP service on Certkiller 1
Copy the backup file of the DHCP database to Certkiller 3
Restore the DHCP service on Certkiller 3 and then authorize DHCP services on Certkiller 3 and activate the DHCP scope.
D. Stop the DHCP service on Certkiller 1.
Replace the DHCP database file on Certkiller 3 with DHCP database file from Certkiller 1.
Deactivate the DHCP service on Certkiller 1, and then authorize the DHCP service on Certkiller 3 and activate the DHCP scope.

Answer: C

Explanation: The DHCP scope that is configured on Certkiller 1 is 192.168.0.10 - 192.168.254. To enable Certkiller 3 to provide DHCP services instead of Certkiller 1, this DHCP scope should be configured on Certkiller 3.
To prevent IP address conflicts and minimize network changes, the backup file of the DHCP database of Certkiller 1 should be copied to Certkiller 3. The DHCP service on Certkiller 1 should be stopped. This would prevent Certkiller 1 from assigning new address leases to clients after the backup of the database. The only task remaining would be to restore and then authorize DHCP services on Certkiller 3, and activate the DHCP scope.

Incorrect Answers:
A: This option will result in you not being able to minimize the IP address conflicts and network changes that you will ensue when you create a new DHCP scope.
B: DHCP services have to be authorized before IP addresses and renewals of IP addresses will be issued. This would be necessary since this option mentions a new scope that is created on Certkiller 3.
D: You would first need to make a backup of the DHCP database on Certkiller 3 and this backup should be copied to Certkiller 1 if you are to minimize IP conflicts and network changes.

Reference:

**QUESTION 23**
You are the network administrator for Certkiller .com. The network consists of four logical subnets that correspond to four physical subnets. The IP addresses for the logical subnets are 10.5.6.0/24, 10.5.5.0/24, 10.5.4.0/24, and 10.5.3.0/24. Approximately 75 percent of the addresses on each subnet are in use. A 10-Mbps router separates the subnets.
You plan to redesign the network to use a two 100-Mbps switches and one BOOTP router to create two VLANs, as shown in the exhibit.
You need to reconfigure the DHCP server for the new network design. You want each existing DHCP client to retain the address it has in its existing scope, if possible. You do not want to use more than 80 percent of the addresses. What should you do?

A. Create two superscopes:
   * Scope 1: 10.5.5.1/26 - 10.5.6.254/26
   * Scope 2: 10.5.3.1/26 - 10.5.4.254/26
B. Create two superscopes
   * Superscope 1: 10.5.6.1/24 - 10.5.6.254/24 and 10.5.5.1/24 - 10.5.5.254/24
   * Superscope 2: 10.5.4.1/24 - 10.5.4.254/24 and 10.5.3.1/24 - 10.5.3.254/24
C. Create two superscopes:
   * Scope 1: 10.5.7.1/24 - 10.5.7.254/24
   * Scope 2: 10.5.8.1/24 - 10.5.8.154/24
D. Create one superscope: 10.5.6.0/24, 10.5.5.0/24, 10.5.4.0/24, and 10.5.3.0/24

Answer: D

Explanation: Superscopes are required for any network or bordering networks that are configured as multinets or are multinets themselves, forwarding broadcasts via a BOOTP router or DHCP Relay Agent. Superscopes is the administrative grouping of preconfigured scopes. The superscope informs the DHCP service that more than a single logical IP network is present on the identical physical network. In this manner, addresses from either of the scopes in the superscope will work on the network. Creating one superscope: 10.5.6.0/24, 10.5.5.0/24, 10.5.4.0/24, and 10.5.3.0/24, is the ideal solution because this allows the DHCP server to provide multiple logical subnet addresses to the DHCP clients on the one physical network. Existing DHCP clients are still able to retain the address it has in its existing scope. You extend the address space by subnetting it for the same physical network segment.

Incorrect Answers:
A, B, C: Since you do not want to make use of more than 80% of the possible addresses you only need to create a single superscope. In all these options there is talk of more than one superscope and the ranges that are suggested will result in more than 80% of the possible IP addresses.
**QUESTION 24**

You are the network administrator for Certkiller .com. The network consists of two subnets. All desktop computers are on subnet 10.10.0.0. All servers are on subnet 10.9.8.0. All servers except Server CK1 and Server CK2 use statically assigned IP addresses. Server CK1 and Server CK2 will use client reservations in DHCP. You want to configure scope options with the settings shown in the following table.

<table>
<thead>
<tr>
<th>IP configuration</th>
<th>Server CK1</th>
<th>Server CK2</th>
<th>Desktop computers</th>
</tr>
</thead>
<tbody>
<tr>
<td>003 Router</td>
<td>10.9.8.1</td>
<td>10.9.8.1</td>
<td>10.10.0.1</td>
</tr>
<tr>
<td>006 DNS Servers</td>
<td>10.9.8.20</td>
<td>10.9.8.20</td>
<td>10.9.8.20</td>
</tr>
<tr>
<td>044 WINS/NBNS Servers</td>
<td>131.107.5.30</td>
<td>131.107.5.30</td>
<td>10.9.8.40</td>
</tr>
<tr>
<td>046 WINTS/NBT Node Type</td>
<td>0x2</td>
<td>0x8</td>
<td>0x8</td>
</tr>
</tbody>
</table>

You configure all options necessary for Server CK2 and the desktop computers to receive their necessary configurations. Now you want to configure the DHCP server for the appropriate Server CK1 options with the minimum amount of administrative effort.

Which options should you configure for Server CK1?

A. Reservation option 003 Router: 10.9.8.1
   Scope option 044 WINS/NBNS Servers: 10.9.8.60
   Server option 003 Router: 10.9.8.1
B. Reservation option 006 DNS Servers: 10.9.8.20 and 131.107.5.30
   Scope option 046 WINS/NBT Node Type: 0x2
   Server option 006 DNS Servers: 10.9.8.20 and 131.107.5.30
C. Reservation option 044 WINS/NBNS Servers: 10.9.8.60
   Scope option 003 Router: 10.9.8.1
   Server option 046 WINS/NBT Node Type: 0x2
D. Reservation option 046 WINS/NBT Node Type: 0x2
   Scope option 003 Router: 10.9.8.1
   Server option 006 DNS Servers: 10.9.8.20 and 131.107.5.30
   Scope option 044 WINS/NBNS Servers: 10.9.8.60

Answer: D

Explanation: The only difference between the configuration of the scope options for Server CK1 and Server CK2 is the Node Type. The following is list of the 046 Node Types and the role they play in name resolution. When you set up 046
WINS/NBNS Servers in DHCP Scope Options, you must select 046 and configure the node type.

1. (0x1) - B node (Broadcast): Relies completely on local broadcasts for name registration, discovery and release. If the host cannot be found in the NetBIOS name cache or by local broadcast, the name is not resolved.
2. (0x2) - P node (Peer): Forces clients to directly contact a WINS server if the name is not resolved in the local cache.
3. (0x4) - M node (Mixed): Combination of B node and P node. The cache is checked first, then local broadcast, and finally the WINS server.
4. (0x8) - H node (Hybrid): Like Mixed only in reverse order. The cache is still checked first, then the WINS server, finally local broadcast. This is the default setting for client side WINS configurations.

Incorrect Answers:
A, B, C: These options should also work. Option 046 allows you to enter the specific node type you want your client to use. Node types determine the order in which your client tries to resolve NetBIOS names. However, they will involve more administrative effort than is necessary.

Reference:
Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Chad Todd and Laura Hunter, Implementing, Managing, and Maintaining a Windows Server 2003 Network Infrastructure Guide & DVD Training System, pp. 291, 359-360

QUESTION 25
Client computers for the accounting, marketing, and sales departments reside on the subnet 192.168.5.0/24. The number of client computers for each department is shown in the following table.

<table>
<thead>
<tr>
<th>Department</th>
<th>Number of client computers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>8</td>
</tr>
<tr>
<td>Marketing</td>
<td>20</td>
</tr>
<tr>
<td>Sales</td>
<td>50</td>
</tr>
</tbody>
</table>

All client computers currently receive their TCP/IP configuration from a DHCP server named Certkiller 12.
Computers in the accounting department frequently connect to an FTP server on the Internet to download application updates. A firewall is configured to allow FTP access only from computers within the IP address range of 192.168.5.50 to 192.168.5.57.
You need to ensure that only the accounting computers can access the Internet by using FTP. What should you do?

A. On Certkiller 12, create an exclusion for the IP address range of 192.168.5.50 to 192.168.5.57.
B. On Certkiller 12, create a new User Option class named Accounting.
C. On all accounting computers, run the ipconfig /setclassid command.
D. On Certkiller 4, create a reservation for the IP address range of 192.168.5.50 to 192.168.5.57 for all accounting computers.
E. On the DNS server, create a reverse lookup zone for the subnet 192.168.5.0/24.

Answer: D
Explanation
You use a reservation to create a permanent address lease assignment by the DHCP server. Reservations assure that a specified hardware device on the subnet can always use the same IP address. For example, if you have defined the range 192.168.5.50 through 192.168.5.57 as your DHCP scope, you can then reserve an IP address within that scope. This will ensure that only accounting computers can access the Internet through the FTP.

Incorrect answers:
A: To exclude predefined addresses, you can simply choose to limit the scope range so that it does not include any statically assigned addresses. Alternatively, you can configure a scope that makes up the entire subnet and then immediately define exclusion ranges for all of the subnet's statically addressed computers. However, if you set exclusion on the IP address range 192.168.5.50 to 192.168.5.57 then you will be excluding the accounting computers as well.
B: Creating a new User option class is not going to solve your dilemma.
C: Running the ipconfig/setclassid command is not the solution as it will not address the problem.
E: In reverse lookup zones, DNS servers map IP addresses to FQDNs. Forward lookup zones thus answer queries to resolve FQDNs to IP addresses, and reverse lookup zones answer queries to resolve IP addresses to FQDNs. But creating a reverse lookup zone for the subnet 192.168.5.0/24 is not going to ensure that only accounting computers can access the Internet through the FTP.

Reference:

QUESTION 26
You are the network administrator for Certkiller .com. The network contains 1,300 Windows XP Professional computers. All client computers receive their IP addresses from a DHCP server.
You are configuring a DHCP scope to assign addresses to the client computes. You need to place all the client computers in the same subnet,
You need to reserve 100 addresses for servers and printers that will not receive IP address assignments automatically. To allow for future growth, you need to configure the scope to host 3,800 client computers. How should you configure the scope?
To answer, configure the appropriate option or options in the dialog box, and drag the appropriate IP address or addresses and the appropriate subnet mask to the correct locations in the dialog box. (Not all portions of the dialog box are active)
You need to accommodate 3800 hosts. If you use 12 bits for the host addresses, you can have up to 4096 (-2) host addresses. 12 bits for the hosts would provide 20 bits (32 - 12 = 20) for the network address. A 20 bit network mask is 255.255.240.0.

The network range from the options given would be 10.0.0.0 to 10.0.15.255. You are reserving the first 100 addresses; therefore your DHCP scope should start at 10.0.0.101. The only end address within the network range that provides enough host addresses is 10.0.15.160.

Reference:
Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Chad Todd and Laura Hunter, Implementing, Managing, and Maintaining a Windows Server 2003 Network Infrastructure Guide & DVD Training System, p. 179

**QUESTION 27**
You are the administrator of the Certkiller .com company network. The network consists of a single active

You install and configure a new Windows Server 2003 server named Certkiller Srv1 to function as a file server to replace an existing server. You move user files from the old server to Certkiller Srv1, and you create a logon script that maps drive letters to shared folders on Certkiller Srv1.

Users report that they cannot access Certkiller Srv1 through the drive mappings you created. Users also report that Certkiller Srv1 does not appear in My Network Places.

You log on to Certkiller Srv1 and confirm that the files are present and that the NTFS permissions and share permissions are correct. You cannot access any network resources. You run the ipconfig command and see the following output.

You need to configure the TCP/IP properties on Certkiller Srv1 to resolve the problem.

What should you do?

A. Add Certkiller .com to the DNS suffix for this connection field.
B. Configure the default gateway.
C. Configure the DNS server address.
D. Configure a static IP address.

Answer: D

Explanation: The IP address shown in the exhibit is an APIPA (automatic private IP addressing) address. This means that the server is configured to use DHCP for its IP configuration but is unable to contact a DHCP server (a likely cause for this is that there isn't a DHCP server on the network). Thus when there is no DHCP server available to issue IP addresses, then a static IP address in the same range as the rest of the network should be assigned to resolve the problem.

Incorrect Answers:
A: A DNS suffix isn't necessary as it will not resolve the problem for the users.
B: A default gateway obsolete unless this is a routed network.
C: The server not having a DNS server address wouldn't prevent clients connecting to the server.

Reference:

QUESTION 28
Certkiller is setting up a sales booth at a large trade show. Twelve Certkiller sales representatives will be working in the booth. The sales representatives each have a portable computer that runs Windows XP Professional.
You configure a server named Certkiller 2 with a LAN connection and a dial-up connection to the Internet. All of sales representatives' computers are also connected to the LAN. The 12 sales representatives report that they cannot connect to the Internet. You view the configuration of one of the portable computers as shown in the exhibit.

You need to provide the 12 sales representatives portable computers with Internet access. What should you do?

A. Configure Internet Connection Sharing (ICS) on Certkiller 2.
B. Install the DHCP service on Certkiller 2. Create a scope for subnet 169.254.0.0/16.
C. Modify the Internet Explorer properties on the 12 sales representatives' computers to specify 169.254 as the proxy server.
D. Install the Connection Manager Administration Kit (CMAK) on Certkiller 2.

Answer: A

Explanation:
Internet Connection Sharing (ICS) is a shared dial-up connection on a server that provides Internet access to network clients and automatically configures client computers with an address in the 192.168.0.x subnet range.

Incorrect answers:
B: The Dynamic Host Configuration Protocol (DHCP) service can be implemented to centralize the administration and assignment of IP addresses. It automates and centralizes many of the tasks associated with IP addressing. This is not providing people with Internet access.
C: Modifying the Internet Explorer properties to specify 169.254 as the proxy server is not the same as providing Internet access.
D: Installing CMAK on Certkiller 2 will not be providing the 12 sales representatives with Internet Access.

Reference:
Diana Huggins, Windows Server 2003 Network Infrastructure Exam Cram 2 (Exam 70-291), Chapter 2

QUESTION 29
You are the Network Administrator for Certkiller .com. The network contains two Windows Server 2003
computers and 220 Windows XP Professional computers. You plan to add 75 Windows XP Professional to a new subnet on the network.
A server named Certkiller A hosts the DNS services for the network. You placed Certkiller A in the new subnet. A server named Certkiller B hosts the DHCP services for the network. The router is configured as a DHCP relay agent.
You placed a client computer named Client 1 in the new subnet. The relevant portion of the network is shown in the network exhibit.

![Network Diagram]

You configure the DHCP server with two scopes. One scope leases IP addresses to client computers on the 192.168.0.0 subnet. The other scope leases IP addresses to the 192.168.5.0 subnet.
You test the new configuration with client1. Client1 can ping Certkiller B by its IP address, but not by the name Certkiller B. Certkiller.com. Client1 can ping Certkiller A by both, its name and its IP address. You run the ipconfig command to verify the IP configuration of client1. The results are shown in the IP configuration exhibit.
You need to configure client1 so that it can address all the hosts on the network by their names. How should you configure the DHCP service for the 192.168.0.0 scope on Certkiller B?

A. Set the default gateway as 192.168.0.100
B. Set the subnet mask to 255.255.0.0
C. Set the primary DNS suffix to Certkiller.com
D. Set the IP Address of the DNS server to 192.168.0.100

Answer: D

Explanation: A hostname resolution problem is occurring. The DNS server address is incorrect in the output from the ipconfig command. The DNS server should be set to 192.168.0.100.

Incorrect Answers:
A: By configuring the default gateway to 192.168.0.100 will not enable Client1 the ability to address all network hosts by name.
B: By setting the subnet mask to 255.255.0.0 you will not ensure that Client1 will address all the hosts on the network by their name.
C: Setting a primary DNS suffix means that only domain names listed in that window will be tried for resolution purposes. Both the connection-specific and primary DNS suffix are ignored.

Reference:
Deborah Littlejohn Shinder, Dr. Thomas W. Shinder, Chad Todd and Laura Hunter, Implementing, Managing, and Maintaining a Windows Server 2003 Network Infrastructure Guide & DVD Training System, p. 515

QUESTION 30
Exhibit, ipconfig
The network contains two domain controllers and three file servers. The DHCP server for the network is named Certkiller 6. All client computers are configured as DHCP clients.
Users report that they cannot connect to the file servers on the network. On one of the affected computers, you run the ipconfig /all command. You receive the result shown in the IPconfig exhibit.
You log on to the DHCP server and view the DHCP console as shown in the DHCP exhibit.
You need to ensure that the users can connect to the network file servers.
What should you do?

A. Start the DHCP service on Certkiller 6.
B. Increase the number of addresses available in the scope on Certkiller 6.
C. Authorize the DHCP server in Active Directory.
D. Add the Certkiller 6 computer account to the DHCP Administrators domain local group.

Answer: A
Explanation
DHCP service is a service that enables a computer to function as a DHCP server and configure DHCP-enabled clients on a network. DHCP runs on a server, enabling the automatic, centralized management of IP addresses and other TCP/IP configuration settings for network clients. To ensure that users can connect to the network file servers, you should start the DHCP service on Certkiller 6 which is the DHCP server for the network and all client computers are configured as DHCP clients.

Incorrect answers:
B: Enlarging the scope on Certkiller 6 does not necessarily mean that the users can connect to the network file servers since the DHCP exhibit shows status not connected; one can deduce that the DHCP service has not been started.
C: When you authorize a server, you're really adding its IP address to the Active Directory object that contains a list of the IP addresses of all authorized DHCP servers. At start time, each DHCP server queries the directory, looking for its IP address on the "authorized" list. If it can't find the list, or if it can't find its IP address on the list, the DHCP service fails to start. Instead, it logs an event log message indicating that it couldn't service client requests because the server wasn't authorized. The exhibits do not suggest unauthorized DHCP servers.
D: To authorize a DHCP server, you must be logged on as a member of the Administrators or Enterprise Admins groups. But adding Certkiller 6 computer account to the DHCP Administrators domain local group is not the solution.

Reference: