Exam Report: 5.3.10 Practice Questions

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Overall Performance

Your Score: 88%

Passing Score: 80%

View results by: Objective Analysis Individual Responses

Individual Responses

Question 1: Correct

After installing a new DHCP server on the network, you need to verify that network devices are receiving IP addressing via DHCP. You reboot a Windows 10 client system and using the **ipconfig /all** command, receive the following information:

Ethernet adapter Local Area Connection 1:
Description . . . . . : Intel(R) Ethernet Connection
Physical Address. . . . . : 02-00-4C-4F-3F-50
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Autoconfiguration IPv4 Address. . : 169.254.25.129
Subnet Mask . . . . . : 255.255.0.0
Default Gateway . . . . . :
DNS Servers . . . . . :

Which of the following statements are true? (Select two).

- [ ] The network subnet mask is incorrect.
- [ ] The network is configured to use static IP addressing.
- [x] The client system is configured to use DHCP.
- [x] The client system is unable to reach the DHCP server.
- [ ] The default gateway address needs to point to the DHCP server.
- [ ] DHCP is disabled on the client system.

Explanation

A system configured as a DHCP client will attempt to locate a DHCP server during the boot process. If the client system is unable to locate the DHCP server and obtain IP information, an APIPA assigned address will be used. The client also configures itself with a class B subnet mask of 255.255.0.0.

The output from the ipconfig command shows that the client system has been configured to receive IP information from a DHCP server. As such, the client system attempted to locate the DHCP server. When it couldn't, received the APIPA address of 169.254.25.129 and a subnet mask of 255.255.0.0. The default gateway does not have to be present to access a DHCP server.

References

LabSim for Network Pro, Section 5.3.
[netpro18v5_all_questions_en.exm NP05_2-9 #42]

Question 2: Correct

Your Windows DHCP server had a default lease time of eight days. However, you have decided to reconfigure this DHCP server to dynamically assign IP addresses to DHCP clients using a lease duration of four days.

What impact, if any, will this have on the network?

- Network bandwidth will increase
- Decreased network traffic
- Router performance will improve
- Increased network traffic
- No impact

Explanation

Decreasing lease time does slightly increase network traffic because clients will have to renew their IP addresses more often. However, decreasing the lease time also makes it so that you use your addresses more efficiently.

There is no correlation to bandwidth increase or router performance increase.

References

LabSim for Network Pro, Section 5.3.
[netpro18v5_all_questions_en.exm MCS6||K2/]

Question 3: Correct

You have a network with 50 workstations. You want to automatically configure workstations with the IP address, subnet mask, and default gateway values.

Which device should you use?

- Gateway
- Router
- DHCP server
- DNS server

Explanation

Use a DHCP server to deliver configuration information to hosts automatically. Using DHCP is easier than configuring each host manually.

Use a gateway to provide access to a different network or a network that uses a different protocol. Use a router to connect multiple subnets. Use a DNS server to provide name resolution (for example, to get the IP address associated with a logical host name).

References

LabSim for Network Pro, Section 5.3.
[netpro18v5_all_questions_en.exm NP09_3-1 #3]

Question 4: Correct

Which two of the following statements about the dynamic host configuration protocol (DHCP) are true?

- [x] It can deliver other configuration information in addition to IP addresses.
- [x]

- [x] A DHCP server assigns addresses to requesting hosts.
- [ ] It cannot be configured to assign the same IP address to the same host each time it boots.
- [ ] It is only used to deliver IP addresses to hosts.

Explanation

DHCP servers deliver IP addresses as well as other host configuration information to network hosts.

DHCP can be configured to assign any available address to a host, or it can assign a specific address to a specific host.

References

LabSim for Network Pro, Section 5.3.
[netpro18v5_all_questions_en.exm NP05_2-9 #17]

Question 5: Incorrect

Which of the following strategies are used to prevent duplicate IP addresses being used on a network? (Select two.)

- [x] Install a DHCP server on the network.
- [ ] Configure client systems to use static IP assignment.
- [ ] Use Automatic Private IP Addressing.
- [ ] Configure a HOSTS file for local IP resolution.
- [x] ~~Install the DHCP client on all workstations.~~
- [ ] Set the Windows network-monitoring utility to identify potential IP conflicts.

Explanation

To avoid duplicate IP addresses being used by network systems, automatic IP assignment is used. Both the DHCP service and APIPA can automatically assign addresses to client systems.

Clients configured to use static IP addressing may inadvertently have duplicate IP addresses assigned to them. In such a case, one of the systems will not be able to log on to the network.

References

LabSim for Network Pro, Section 5.3.
[netpro18v5_all_questions_en.exm NP05_2-9 #61]

Question 6: Correct

Due to widespread network expansion, you have decided to upgrade the network by configuring a DHCP server. The network uses Linux, Windows, and Mac OS X client systems.

You configure the server to distribute IP addresses from 192.168.2.1 to 192.168.2.100. You use the subnet mask of 255.255.255.0.

After making all setting changes on the DHCP server, you reboot each client system, but they are not able to obtain an IP address from the DHCP server.

Which of the following would explain the failure?

- (•) The clients must be configured to obtain IP addressing from a DHCP server.
- ( ) DHCP does not work in a heterogeneous computing environment unless the DHCP Samba client software is installed.

DHCP does not function in a heterogeneous computing environment.

The DHCP server must be rebooted.

192.168.x.x requires a class C subnet mask.

Explanation

Once a DHCP server has been configured for the network, each client system has to be told to look for a DHCP server to obtain its IP addressing. Selecting DHCP to obtain IP addressing information is typically as easy as selecting a radio button. If the client is not set to DHCP, it will look for a statically assigned IP address.

The DHCP service is supported by all major operating systems today. Using DHCP among different client systems would not be a problem. Rebooting the DHCP server would not be helpful if the client systems are not configured to use the DHCP service.

References

LabSim for Network Pro, Section 5.3.
[netpro18v5_all_questions_en.exm NP05_4-6 #24]

Question 7: Correct

You have a TCP/IP network with 50 hosts. There have been inconsistent communication problems between hosts. You run a protocol analyzer and discover that two hosts have the same IP address assigned.

Which protocol can you implement on your network to help prevent problems such as this?

DHCP

IGMP

ICMP

SNMP

TCP

IP

Explanation

You can use the dynamic host configuration protocol (DHCP) to set up a DHCP server that will assign IP addresses automatically to network hosts. DHCP servers will not assign the same IP address to two different hosts.

References

LabSim for Network Pro, Section 5.3.
[netpro18v5_all_questions_en.exm NP05_2-9 #7]

Question 8: Correct

You are implementing a DHCP server for your segment. Your segment's IP address is 192.168.1.0. Your default gateway address is 192.168.1.254. Your DNS server address is 192.168.1.1. Your default gateway is configured as a NAT router to translate addresses between network segments.

You configured the 03 Router option on your DHCP server so it can deliver the IP address of the default gateway to workstations. After configuring your workstations to get their IP addressing information dynamically, your users complain that they are unable to access websites on the internet.

How can you resolve this problem?

You must configure Automatic Private IP Addressing (APIPA) on each workstation using

default settings.

- ➡ (●) You must configure your DHCP server with an option that delivers the IP address of the DNS server (Option 06).
- ( ) You must configure your DHCP server with an option that enables IP forwarding (Option19).
- ( ) You must configure your DHCP server with an option that delivers the IP address of the default World Wide Web server (Option 72).
- ( ) You must implement a BOOTP server instead of a DHCP server.
- ( ) You can't implement a DHCP server in conjunction with a NAT router.

Explanation

In this scenario, the DHCP server hasn't been configured to deliver the IP address of the DNS server to the workstations. When users try to access websites with a browser, they receive an error message because their workstations can't resolve URLs into IP addresses.

To fix this problem, you must enable the 06 Domain Name Server option on the DHCP server and configure it with the IP address of your DNS server.

You could statically configure APIPA on each workstation with the IP address of the DNS server, but doing this would defeat the purpose of implementing a DHCP server in the first place.

References

LabSim for Network Pro, Section 5.3.
[netpro18v5_all_questions_en.exm NP05_4-6 #90]