3.1.8 Practice Questions

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Score: 100%

Passing Score: 80%

[redacted]

Question 1. ✓ Correct

You are a field technician for a large company. You have been sent to a remote site to troubleshoot a downed router. When you arrive at the remote site, how will you connect your laptop to the router?

- Connect the laptop's COM/USB port to the router's Ethernet port using a straight-through cable.
- Connect the laptop's COM/USB port to the router's console port using a crossover cable.
- → Connect the laptop's COM/USB port to the router's console port using a rollover cable.
- Connect the laptop's COM/USB port to the router's console port using a straight-through cable.

Explanation

You can connect a PC directly to a router using a RJ-45-to-DB-9 female DTE rollover cable or an RJ-45 to USB rollover cable.

References

2.1.9 TCP and UDP Port Numbers
2.2.5 Network Applications
3.1.1 Device Access
3.1.2 Device Connection Facts
13.8.4 Set Up Secure Remote Access

resources\text\t_cabtyp_ccna7\q_cabtyp_01_ccna7.question.xml

Question 2. ✓ Correct

You want to make a console connection to a router using the serial port on a PC. Select the necessary components to make the console connection. Select only the necessary components.

Components

- ✓ Rollover cable
- ✓ Console port
- ✓ Terminal emulation program

Explanation

To make a console connection, connect the router's console port to the PC's serial port with a rollover cable, and then run a terminal emulation program (such as HyperTerminal) on the PC to make the connection.

To connect to a router with a Telnet session connect the router to a PC or to the network using the Ethernet port and an Ethernet cable. The router interface must be assigned an IP address.

References

2.1.9 TCP and UDP Port Numbers
2.2.5 Network Applications
3.1.1 Device Access
3.1.2 Device Connection Facts
13.8.4 Set Up Secure Remote Access

resources\text\t_cabtyp_ccna7\q_cabtyp_02_ccna7.question.xml

Question 3. ✓ Correct

Match the memory types with the information they store.

Stores the running-configuration file, routing tables, and ARP tables.

✓ RAM

Stores the startup-configuration file.

✓ NVRAM

Stores the Cisco IOS software.

✓ FLASH

Stores POST and the boot loader software.

✓ ROM

Explanation

RAM stores the running-configuration file, routing tables, and ARP tables.

FLASH stores the Cisco IOS software.

ROM stores POST and the boot loader software.

NVRAM stores the startup-configuration file.

References

3.1.7 Manage IOS Files Facts

resources\text\t_ios_files_ccna7\q_ios_files_01_ccna7.question.xml

Question 4. ✓ Correct

You have issued the following command and received the response as shown.

```
Router#sh start
%%Non-volatile configuration memory has not been set up or has
bad checksum
```

Which of the following is a reason for this response?

- The command was issued from user EXEC mode but needs to be issued from privileged EXEC mode instead.
- RAM memory contains no configuration file.
- The router issues a bad checksum because a file on the TFTP server is also named startup-config.
- → ◉ No configuration file has been saved to NVRAM.

Explanation

This message is shown if no configuration file are saved to NVRAM.

References

3.1.7 Manage IOS Files Facts

resources\text\t_ios_files_ccna7\q_ios_files_02_ccna7.question.xml

Question 5. ✓ Correct

Which of the following measures can you implement to help secure access to a router? (Select two.)

→ ☑ Keep the router in a locked room.

☐ Configure the **enable secret** password.

☐ Use the **service password-encryption** command.

☐ Configure SSH.

→ ☑ Set a password and use the **login** command.

Explanation

To help secure access, set a password and use the **login** parameter to enable password checking. Because access through the console port must be done locally, users must have physical access to the router in order to make a console connection. Keep the router in a locked room to help control access. If a user has access to the physical device, he or she can gain access, even if a password has been set.

Configure the **enable secret** password to require a password to enter privileged EXEC mode. This password can be bypassed if physical access to the router is not secured. Use SSH to secure remote access to the router console. Use the **service password-encryption** command to encrypt passwords in the configuration file.

References

3.1.7 Manage IOS Files Facts

resources\text\t_ios_files_ccna7\q_ios_files_03_ccna7.question.xml

Question 6. ✓ Correct

Put the boot sequence process items in order.

1

✓ Power-on self-test checks hardware.

2

✓ Boot loader software is loaded.

3

✓ IOS is loaded.

4

✓ Startup-config is loaded.

Explanation

After a successful power-on-self-test, the device copies the boot loader software, which is sometimes called a bootstrap, from the ROM into RAM and executes it. The bootstrap program initializes the CPU and enables other boot functions. It also determines which IOS image should be used and when to load it.

As the IOS loads from flash memory, the boot loader software turns control of the system over to the operating system.

Then the IOS locates the startup configuration file in NVRAM and loads it into RAM as the running-config file.
At this point, all interfaces are initialized using the commands found in the startup-config file. Everything is loaded into RAM, so the boot sequence is complete.

References

3.1.7 Manage IOS Files Facts

resources\text\t_ios_files_ccna7\q_ios_files_04_ccna7.question.xml

Question 7. ✓ Correct

You are the senior network administrator for a large company. A junior administrator from one of your field offices sent you a router that he thinks is faulty. He says the router always uses default settings and boots to setup mode even though he has verified that startup-config contains the correct values.

What is the most likely source of the problem?

- Startup-config in NVRAM is corrupt and must be erased and restored from backup.
- → The router configuration register is set to bypass startup configuration.
- There is no space available in NVRAM.
- The NVRAM chip is faulty, preventing the router from loading the configuration.

Explanation

The configuration register can be configured to bypass startup configuration settings. Use **Router(config)#config-register 0x2102** to change the configuration register.

Use **show version** to display the current configuration register setting.

The configuration register for most Cisco devices is normally 0x2102. When configured to bypass startup configuration, the setting will be 0x2142.

References

3.1.7 Manage IOS Files Facts

resources\text\t_ios_files_ccna7\q_ios_files_05_ccna7.question.xml

Question 8. ✓ Correct

The configuration register runs during the POST. What does it control?

- What is stored in NVRAM.
- → How the router boots up.
- The licensing information.
- The running-config file.

Explanation

The configuration register runs during the POST, and it controls how the router boots up.

References

3.1.7 Manage IOS Files Facts

resources\text\t_ios_files_ccna7\q_ios_files_06_ccna7.question.xml

Question 9. ✓ Correct

You have made configuration changes to your Cisco device. Now you want to save the changes to use the next time the device is booted up. Which command could you use?

- **flash start copy**
- → **copy run start**
- **run copy start**
- **copy start tftp**

Explanation

If you want to save the changes made to a Cisco device, you need to copy them to the startup-config file to use the next time the device is booted up. You can do this with the **copy run start** command, which is basically just a shorter version of **copy running-config startup-config**. This command instructs the device to copy the contents of the running-config file to the startup-config file.

References

3.1.7 Manage IOS Files Facts

resources\text\t_ios_files_ccna7\q_ios_files_07_ccna7.question.xml

Question 10. ✓ Correct

The Cisco IOS image file names contain several parts. It's important to understand this naming convention when you are choosing the correct IOS software.

Consider the filename c2900-universalk9-mz.SPA.157-3.M5.bin.

Match the parts of the file name on the left with the description on the right.

Specifies that the file has been digitally signed by Cisco.

✓ SPA

Major Release 15, minor release 7.

✓ 157

Identifies the platform on which the image runs.

✓ C2900

Is the file extension.

✓ Bin

Runs in RAM as opposed to running directly from flash.

✓ -m

Indicates that all of the features, turned on and off by a software license is included.

✓ Universal

Includes export controlled cryptography software.

✓ k9

Indicates the file as a compressed image.

This is the 3rd maintenance release.

✓ z

✓ -3

Specifies the version of the IOS

✓ M5

Explanation

Consider the filename c2900-universalk9-mz.SPA.157-3.M5.bin:

- C2900 identifies the platform on which the image runs. In this example, the platform is a Cisco 2900 router.
- Universal indicates that all of the features, turned on and off by a software license is included.
- k9 includes export controlled cryptography software.
- -m runs in RAM (memory) as opposed to running directly from flash.
- z indicates the file as a compressed image.
- SPA designates that the file has been digitally signed by Cisco.
- 157 designates major release 15 (Polaris), minor release 7 (aka, 15.7).
- -3 is the 3rd maintenance release.
- M5 specifies the version of the IOS, including the major release, minor release, maintenance release, and maintenance rebuild numbers. The M indicates that this is an extended maintenance release.
- .bin is the file extension indicating that this file is a binary executable file.

References

3.1.7 Manage IOS Files Facts

resources\text\t_ios_files_ccna7\q_ios_files_08_ccna7.question.xml