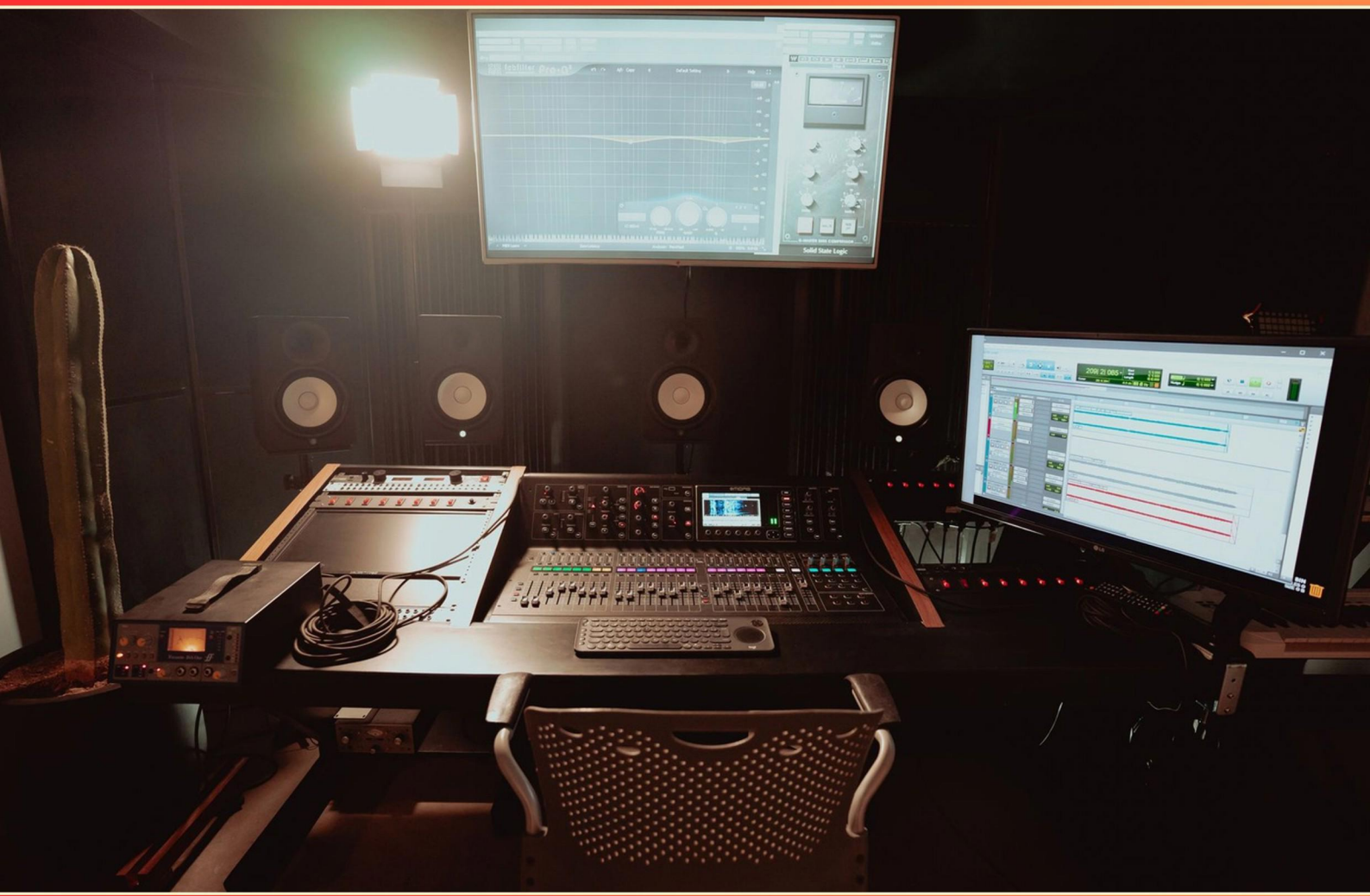
CISCO CERTIFIED TECHNICIAN PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

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How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

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Questions

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1. **What type of LEDs are associated with the PCMCIA slots in the Supervisor Engine?**

   A. Power LEDs

   B. Link LEDs

   C. Disk LEDs

   D. Status LEDs

2. **What is the role of a CD (carrier detect) signal?**

   A. To boost wireless signals in a network

   B. To indicate whether an interface is active

   C. To encrypt transmitted data for security

   D. To manage data packet sizes on the network

3. **What is the purpose of the keepalive mechanism in LMI?**

   A. To reduce network congestion

   B. To verify data flow is active

   C. To enable dynamic addressing

   D. To support extended network protocols

4. **When editing a configuration for reuse on a replacement device, what should be removed?**

   A. All commands under system status

   B. Commands starting with 'enable secret' and 'username'

   C. All routing commands

   D. Only expired IP configurations

5. **What is the primary function of a Data Service Unit (DSU)?**

   A. To adapt the DTE physical interface to a transmission facility

   B. To handle user authentication for network access

   C. To encrypt data packets during transmission

   D. To provide a backup power source for network devices

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6. What speed does Ethernet typically operate at?

A. 1 Mbps

B. 10 Mbps

C. 100 Mbps

D. 1000 Mbps

7. What type of Ethernet ports does the mixed interface combo card provide?

A. Auto-sensing 10/100 Ethernet ports

B. Gigabit Ethernet ports

C. Only 10/100 Fast Ethernet ports

D. Only fiber optic Ethernet ports

8. What is the command to save a Cisco router or switch configuration?

A. copy startup-config running-config

B. save running-config startup-config

C. copy running-config startup-config

D. store config running-config

9. Which of the following is a communication protocol that allows for the transmission of voice and data together?

A. IPX

B. Ethernet

C. ISDN

D. Frame Relay

10. Which card is used to connect directly to analog phones?

A. FXO VIC

B. FXS VIC

C. VIC

D. AIM

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Answers

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1. C
2. B
3. B
4. B
5. A
6. B
7. A
8. C
9. C
10. B

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Explanations

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1. What type of LEDs are associated with the PCMCIA slots in the Supervisor Engine?

A. Power LEDs

B. Link LEDs

C. Disk LEDs

D. Status LEDs

The correct choice is associated with the functionality that PCMCIA slots offer in the Supervisor Engine. The Disk LEDs indicate the operational status of storage devices that might be connected through these slots. Specifically, they provide information regarding access and activity on the disk drives, which can include reading, writing, or errors. In contrast, other types of LEDs serve different functions. Power LEDs typically indicate whether the device is receiving power and operational status, while Link LEDs relate to network connections, showing the status of network interfaces. Status LEDs might convey general operational state or fault conditions of the entire supervisor module but do not pertain specifically to the PCMCIA slots. Understanding the specific indicators associated with different components helps in troubleshooting and managing network devices effectively.

2. What is the role of a CD (carrier detect) signal?

A. To boost wireless signals in a network

B. To indicate whether an interface is active

C. To encrypt transmitted data for security

D. To manage data packet sizes on the network

The role of a CD (carrier detect) signal is to indicate whether an interface is active. This signal is used in telecommunications to determine if a communication line is currently in use. When the CD signal is active, it means that the carrier signal is present, indicating that the device is ready to send or receive data. This status is vital for devices in a network, as it helps in managing the flow of data and ensuring proper communication between devices. When an interface is deemed active due to the presence of a carrier detect signal, it allows the network devices to synchronize and effectively manage their communications. This function is crucial for preventing data collisions and ensuring that transmissions occur smoothly. The other options do not accurately describe the role of the CD signal, as they pertain to different functionalities unrelated to the indication of interface activity.

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3. What is the purpose of the keepalive mechanism in LMI?

A. To reduce network congestion

B. To verify data flow is active

C. To enable dynamic addressing

D. To support extended network protocols

The keepalive mechanism in LMI (Logical Link Management Interface) serves the primary purpose of verifying that the data flow on a connection is active. It accomplishes this by sending regular signals or messages between devices, which helps ensure that the link is still operational. This mechanism is essential in maintaining the reliability of communication across a network, particularly in scenarios where connections may become inactive due to various issues such as network timeout or failure. By confirming that the connection is alive, the keepalive function allows for more efficient error handling and troubleshooting. If a keepalive signal isn't received within a specified timeframe, devices can take appropriate actions, such as re-establishing a connection or notifying network administrators of potential issues. This proactive approach helps maintain the health of the network and ensures that data can continue to flow without interruption. The other options, while relevant to various aspects of networking, do not specifically pertain to the core function of the keepalive mechanism in LMI. For instance, reducing network congestion and enabling dynamic addressing are important considerations in network management and design but are not directly related to the purpose of keepalives. Similarly, supporting extended network protocols might involve various technologies but does not directly reflect the main role of LMI's keepalive functionality.

4. When editing a configuration for reuse on a replacement device, what should be removed?

A. All commands under system status

B. Commands starting with 'enable secret' and 'username'

C. All routing commands

D. Only expired IP configurations

When preparing a configuration for reuse on a replacement device, it is important to remove sensitive information that could compromise security or may not be applicable to the new device. Commands that start with 'enable secret' and 'username' contain credentials that grant access to the device. This information is specific to the previous device and should be eliminated to prevent unauthorized access or account conflicts on the new device. For example, if the configuration is loaded on a new device, any existing 'enable secret' would provide access rights tied to the previous device's administrative credentials, potentially allowing unintended users to access the new device. Similarly, 'username' commands often define user accounts and associated privileges that may not be relevant or required on the replacement device. In contrast, system status commands, routing commands, or configurations that relate only to expired IP addresses might be less critical in terms of security and could be retained if they are relevant to the new device's operation. Thus, focusing on removing sensitive access commands ensures that the new configuration is secure and appropriate for use.

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5. What is the primary function of a Data Service Unit (DSU)?

A. To adapt the DTE physical interface to a transmission facility

B. To handle user authentication for network access

C. To encrypt data packets during transmission

D. To provide a backup power source for network devices

The primary function of a Data Service Unit (DSU) is to adapt the Data Terminal Equipment (DTE) physical interface to a transmission facility. This means that the DSU serves as an interface between the digital circuitry of the DTE and the telecommunications network, often handling the conversion of digital signals to a format suitable for transmission over various media, such as T1 lines. Essentially, the DSU ensures that the equipment can communicate effectively with the carrier's network by managing signal timing, line monitoring, and error correction. This role is crucial in ensuring that data transfer occurs reliably and efficiently, as the DSU can also provide diagnostics and performance monitoring functions. When considering the other options, while user authentication, encryption, and power backup are important aspects of network operation and security, they do not pertain to the specific function of a DSU within a telecommunications environment.

6. What speed does Ethernet typically operate at?

A. 1 Mbps

B. 10 Mbps

C. 100 Mbps

D. 1000 Mbps

Ethernet is a widely used networking technology that has evolved significantly since its inception. While several speeds are recognized within Ethernet standards, 10 Mbps is a defining characteristic of early Ethernet, originally specified in the IEEE 802.3 standard. This speed was prevalent during the initial deployment of Ethernet technology and is often used as a foundational reference point in discussions about Ethernet. The other options denote different generations of Ethernet—such as Fast Ethernet at 100 Mbps and Gigabit Ethernet at 1000 Mbps—which were developed later to accommodate greater data transfer capabilities as network demands evolved. However, 10 Mbps remains a hallmark of Ethernet's early development and is still relevant in legacy systems and discussions about network protocols. Therefore, in the context of the question focusing specifically on the typical speeds associated with Ethernet period, 10 Mbps stands out as the correct choice.

7. What type of Ethernet ports does the mixed interface combo card provide?

A. Auto-sensing 10/100 Ethernet ports

B. Gigabit Ethernet ports

C. Only 10/100 Fast Ethernet ports

D. Only fiber optic Ethernet ports

The mixed interface combo card indeed provides auto-sensing 10/100 Ethernet ports. This feature allows the card to automatically detect and configure its operational speed based on the connected device's capabilities, accommodating both 10 Mbps and 100 Mbps connections. Auto-sensing is particularly advantageous because it simplifies network setup and ensures compatibility between devices operating at different speeds, providing flexibility in network design. In contrast, while Gigabit Ethernet ports support higher bandwidth and faster speeds, the mixed interface combo card is specifically designed for 10/100 speeds. The option indicating only 10/100 Fast Ethernet ports does not reflect the auto-sensing capability, which is a critical feature of the card. Similarly, the choice mentioning only fiber optic Ethernet ports is incorrect as it does not align with the specifications of the mixed interface combo card, which typically includes copper-based connections rather than being limited to fiber.

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8. What is the command to save a Cisco router or switch configuration?

A. copy startup-config running-config

B. save running-config startup-config

C. copy running-config startup-config

D. store config running-config

The command to save a Cisco router or switch configuration is indeed "copy running-config startup-config." This command is essential as it transfers the current running configuration, which resides in the router or switch's volatile memory (RAM), to the startup configuration stored in non-volatile memory (NVRAM). The startup configuration is what the device loads upon reboot, ensuring that all configurations are retained after a power cycle. Using this command effectively makes sure that all changes made to the running configuration—such as interface settings, routing protocols, and other configurations—are preserved for future use. If the running configuration is not saved, any changes made will be lost when the device is restarted. In the context of the other choices, some of them do not adhere to the correct syntax or functionality in Cisco IOS. For instance, "copy startup-config running-config" actually copies the saved configuration into the running configuration, which is the opposite of saving current changes. "save running-config startup-config" lacks the proper command syntax used in Cisco devices, as the correct method involves the 'copy' command. Lastly, "store config running-config" is not a valid command in the Cisco command set, as 'store' is not used in this context. Therefore, the command "

9. Which of the following is a communication protocol that allows for the transmission of voice and data together?

A. IPX

B. Ethernet

C. ISDN

D. Frame Relay

The communication protocol that facilitates the simultaneous transmission of voice and data is Integrated Services Digital Network (ISDN). This protocol was developed to allow digital transmission of voice, video, and data over traditional telephone networks, which primarily were designed for analog signals. ISDN provides end-to-end digital connectivity and can carry multiple channels over a single physical connection, enabling the integration of voice calls and data transfer. ISDN enhances voice communication by offering clear voice quality and lower latency compared to older technologies. By allowing both voice and data services to be transmitted together efficiently, ISDN is particularly useful in scenarios where organizations require reliable communication for both telecommunications and data applications. This capability is essential for businesses that engage in videoconferencing, VoIP (Voice over Internet Protocol), and other applications that necessitate simultaneous voice and data transmission. The other options—IPX, Ethernet, and Frame Relay—do not inherently support combined voice and data transmission in the same streamlined manner as ISDN. IPX is primarily associated with Novell networks and does not handle voice communication. Ethernet is a local area network protocol suitable for data transmission but requires additional layers for voice services. Frame Relay is a data link layer protocol primarily used for connecting WANs and is not specifically designed for voice, although

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10. Which card is used to connect directly to analog phones?

A. FXO VIC

B. FXS VIC

C. VIC

D. AIM

The FXS Voice Interface Card (VIC) is the correct answer because it is specifically designed to connect directly to analog phones. FXS ports provide the necessary ringing voltage and interface for traditional analog devices, such as telephones and fax machines. This card supplies the dial tone and is responsible for providing power to the connected analog devices, allowing them to operate seamlessly with the digital voice network infrastructure. In contrast, the FXO VIC connects to standard telephone lines and is intended for integrating external analog phone lines into a voice network. While the VIC itself signifies a generic Voice Interface Card, it does not specify a particular connection type. Similarly, AIM, or Advanced Integration Module, refers to a broader category of modules used for various purposes, including voice processing, but it does not specifically address the connection to analog phones. Therefore, the FXS VIC is clearly the appropriate choice when it comes to interfacing directly with analog telephony equipment.

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Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://ciscotechnician.examzify.com

We wish you the very best on your exam journey. You've got this!

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