CISCO CERTIFIED ENTRY NETWORKING TECHNICIAN (CCENT) PRACTICE EXAM (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 condition is commonly caused by LLQ during periods of high traffic load?**

   A. Queue starvation

   B. Buffer overflow

   C. Latency spike

   D. Packet loss due to jitter

2. **How many usable hosts are in a /24 subnet?**

   A. 256

   B. 254

   C. 251

   D. 255

3. **Which ACL entry would correctly configure inbound on R1 interface G0/1 to meet the given requirements?**

   A. Deny HTTP traffic from hosts A and B to servers in LAN B.

   B. Deny FTP traffic from hosts C and D to servers in LAN B.

   C. Permit SMTP traffic from hosts B and C to servers in LAN B.

   D. Deny all other SMTP traffic to servers.

4. **Which topology uses a central device to connect to all other devices?**

   A. Star

   B. Full mesh

   C. Partial mesh

   D. Hybrid

5. **Which of the following statements correctly identifies the PDU at the transport layer?**

   A. Segment

   B. Packet

   C. Frame

   D. Enument

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6. Which port security violation mode should be configured to force a port into a disabled state if a different device is plugged in?

A. Shutdown

B. Protect

C. Restrict

D. Disable

7. Which PoE standard uses four wire pairs to deliver power?

A. UPoE

B. PoE

C. PoE+

D. PoE over USB

8. Which command shows the status of configured routing protocols and their timers?

A. show ip protocols

B. show ip route

C. show interfaces

D. show version

9. From the following spoofing attacks, which option leverages an application, device, or service to increase the amount of traffic toward a target?

A. Spoofing

B. Amplification

C. Phishing

D. IP spoofing

10. Which command would you use to test connectivity by IP address and by hostname?

A. Ping for IP address and nslookup for hostname

B. Traceroute for IP address and nslookup for hostname

C. Ping for IP address only

D. Nslookup for IP address only

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Answers

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

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Explanations

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1. What condition is commonly caused by LLQ during periods of high traffic load?

A. Queue starvation

B. Buffer overflow

C. Latency spike

D. Packet loss due to jitter

Low Latency Queuing (LLQ) gives a strict priority to high-priority traffic, serving that class first whenever the link is congested. When the link faces heavy load, that priority traffic can consume most or all of the available bandwidth, leaving the other queues waiting. Over time, this can cause the non-priority traffic to be effectively ignored or severely delayed, which is known as queue starvation. To prevent this, administrators typically cap how much bandwidth the priority queue can use or apply policing, ensuring other traffic still gets served. Buffer overflow is less about LLQ itself and more about if the buffers fill up; LLQ's typical symptom under heavy load is not necessarily a overflow event, but the starvation of lower-priority traffic. Latency spikes can occur for any traffic under congestion, but LLQ's main behavior is to keep priority traffic low-latency while risking starvation for the rest. Jitter-related packet loss isn't the primary result either, since LLQ is designed to minimize delay variation for the priority class, not cause it as the main outcome.

2. How many usable hosts are in a /24 subnet?

A. 256

B. 254

C. 251

D. 255

In IPv4 subnetting, usable hosts come from the total addresses minus the network and broadcast addresses. A /24 has 8 bits for hosts, giving 2^8 = 256 total addresses. The network address is the .0 address and the broadcast address is the .255 address within that range, so those two can't be assigned to hosts. That leaves 256 - 2 = 254 usable host addresses. The other numbers don't fit because 256 is the total, not usable hosts, and 255 is the broadcast address in this range. 251 has no special meaning here.

3. Which ACL entry would correctly configure inbound on R1 interface G0/1 to meet the given requirements?

A. Deny HTTP traffic from hosts A and B to servers in LAN B.

B. Deny FTP traffic from hosts C and D to servers in LAN B.

C. Permit SMTP traffic from hosts B and C to servers in LAN B.

D. Deny all other SMTP traffic to servers.

Blocking a specific application on an inbound interface requires an extended ACL that can match the source addresses, destination network, the protocol, and the port. The best fit here is an entry that denies TCP traffic on port 80 (HTTP) from the two source hosts to the servers in LAN B. When this rule is applied inbound on R1's G0/1, those HTTP sessions are dropped as they arrive, before they reach LAN B, while other traffic continues to be processed according to the rest of the ACL. This approach is precise to the requested restriction, whereas the other options aim at different services (FTP or SMTP) or are too broad, blocking more traffic than intended.

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4. Which topology uses a central device to connect to all other devices?

A. Star

B. Full mesh

C. Partial mesh

D. Hybrid

Star topology uses a central device to connect to all other devices. In this setup, every endpoint has its own link to a hub or switch, and all traffic passes through that central point. This makes management and fault isolation straightforward, because issues on one edge link don't directly disrupt other devices—aside from the central device itself. The trade-off is that the central device becomes a single point of failure and can become a bottleneck if traffic is high. This differs from full mesh, where every device is directly connected to every other device; partial mesh, where not all devices have direct interconnections; and hybrid, which combines different topology types.

5. Which of the following statements correctly identifies the PDU at the transport layer?

A. Segment

B. Packet

C. Frame

D. Enument

At the transport layer, the PDU is called a segment. This naming comes from how data is handled as it moves through the stack: the transport layer adds its own header to the data from the upper layers, forming a segment. In TCP, this segment carries sequencing, control, and reliability information to enable end-to-end delivery. By contrast, the network layer uses packets as its PDU, the data link layer uses frames, and the physical layer works with raw bits. One option isn't a recognized term in this context, and that's why it isn't correct. Since the scenario assumes TCP-style transport behavior, the segment is the appropriate PDU designation for the transport layer.

6. Which port security violation mode should be configured to force a port into a disabled state if a different device is plugged in?

A. Shutdown

B. Protect

C. Restrict

D. Disable

Port security violation responses define what happens when a device with an unauthorized MAC address is detected on a secured port. The mode that forces a port into a disabled state is the one that immediately shuts the interface down when a violation occurs. In this mode, the port becomes error-disabled and remains disabled until an administrator intervenes or automatic recovery is configured. This is the strictest option and is useful when you want to instantly isolate an unknown device. The other modes handle violations without disabling the port: one drops traffic from unknown addresses but keeps the port up, another drops unknown traffic, logs the event, and may notify but also keeps the port up. The option named "Disable" isn't a valid port-security violation mode on Cisco IOS. So to ensure a port is disabled after a violation, you configure the shutdown mode.

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7. Which PoE standard uses four wire pairs to deliver power?

A. UPoE

B. PoE

C. PoE+

D. PoE over USB

Delivering power on all four pairs of the Ethernet cable is what newer PoE implementations do, allowing higher power delivery. Cisco markets this capability as UPoE, signaling that power can be drawn from both data pairs and spare pairs to reach greater budgets. Traditional PoE (IEEE 802.3af) and PoE+ (IEEE 802.3at) send power using only two pairs, so they don't use the four-pair approach. PoE over USB isn't part of the IEEE PoE family. So the option that aligns with four-pair power delivery is UPoE.

8. Which command shows the status of configured routing protocols and their timers?

A. show ip protocols

B. show ip route

C. show interfaces

D. show version

Seeing which routing protocols are configured and what their timers are doing is essential for understanding how a router exchanges routing information and stays in sync with neighbors. The command that shows this is show ip protocols. It lists the routing processes that are active (such as RIP, OSPF, EIGRP, or BGP) and provides the timer values for each process—things like update intervals, hello/dead intervals, and other protocol-specific timing. This helps you confirm that the right protocols are enabled and that their timing settings line up with neighboring devices, which is crucial for proper adjacency and timely route updates. Other commands serve different purposes: show ip route reveals the actual routing table entries, show interfaces reports per-interface status and statistics, and show version displays the device's software and hardware information.

9. From the following spoofing attacks, which option leverages an application, device, or service to increase the amount of traffic toward a target?

A. Spoofing

B. Amplification

C. Phishing

D. IP spoofing

Amplification is about using an application, device, or service to generate much more traffic toward a target than was sent in the original request. The attacker sends small, crafted requests with a forged source IP so the responses go to the victim, and those responses are typically much larger than the requests. This reflection-and-amplification pattern multiplies the amount of traffic hitting the target, which is the defining trait of amplification attacks. DNS and NTP amplification are classic examples: a tiny query prompts a huge response to the target, overwhelming it with traffic. Spoofing in general is a broader deception technique, and phishing is social engineering to trick people, not about flooding a target with traffic. IP spoofing is a specific tactic used to fake the source address, often enabling reflection in amplification, but by itself it doesn't describe increasing the traffic toward the target—the amplification mechanism does.

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10. Which command would you use to test connectivity by IP address and by hostname?

A. Ping for IP address and nslookup for hostname

B. Traceroute for IP address and nslookup for hostname

C. Ping for IP address only

D. Nslookup for IP address only

Testing connectivity to a device and verifying its name resolution uses two complementary tasks. Ping checks reachability by sending an ICMP echo to a specific IP address, confirming the path and responsiveness of that device. For a hostname, you need to verify how that name maps to an IP, which is what nslookup does by querying DNS to return the IP associated with the hostname. Using ping with the IP demonstrates actual connectivity, while nslookup with the hostname confirms the DNS translation works. This combination directly addresses both aspects: IP-based connectivity and hostname resolution. Other options either focus on showing the path to the destination (traceroute) or don't verify both connectivity and DNS mapping.

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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://ciscoccent.examzify.com

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

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