Network Essential Version A (LE) Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

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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.

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!

Questions

1. To prevent neighbors from discovering your wireless network, what action should you take?

A. Disable SSID Broadcast.

B. Enable SSID Broadcast.

C. Change the SSID name.

D. Use MAC filtering only.

2. IPv6-to-IPv4 translation is best described by which statement?

A. IPv6 packets are translated to IPv4 packets, and vice versa.

B. IPv6 runs only on dedicated links separate from IPv4.

C. IPv4 is encapsulated in IPv6 only.

D. Translation happens via NAT64 only.

3. Which command provides security on the console?

A. Router(config-line)# password class

B. Router(config-line)# enable secret

C. Router(config)# banner motd #

D. Router(config)# hostname CL1

4. DHCPACK: what does it indicate?

A. The DHCP server confirming that the address lease has been accepted

B. The client requesting to renew an address

C. A client initiating a message to find a DHCP server

D. The server offering an IP address

5. Which command sequence configures the router's hostname to CL1?

A. Router(config)# hostname CL1

B. Router(config)# set hostname CL1

C. Router(config-line)# hostname CL1

D. Router(config)# system hostname CL1

6. Which command displays a message when the router is accessed?

A. Router(config)# banner motd #

B. Router(config)# hostname CL1

C. Router(config-line)# password class

D. Router(config)# banner login

7. On a router with an enabled secret password but no console password, which mode is displayed upon boot?

A. User EXEC mode

B. Privileged EXEC mode

C. Global Configuration mode

D. ROM Monitor mode

8. What is indicated by the term throughput?

A. The measure of the bits transferred across the media over a given period of time

B. The maximum number of simultaneous connections

C. The latency of packets traveling across the network

D. The amount of data stored on the device

9. Convert the hexadecimal value 0x2DF to decimal.

A. 735

B. 733

C. 745

D. 720

10. Which networking trend enables each customer to have a separate web server on a single physical CPU?

A. virtualization

B. clustering

C. load balancing

D. multicast

Answers

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

Explanations

1. To prevent neighbors from discovering your wireless network, what action should you take?

A. Disable SSID Broadcast.

B. Enable SSID Broadcast.

C. Change the SSID name.

D. Use MAC filtering only.

Hiding the network name by turning off SSID broadcast reduces how easily the network shows up in nearby devices. When the router stops broadcasting the SSID in beacon frames, casual scanners don't see the network in the list of available networks, making it harder for neighbors to discover it. To connect, a user must know the exact SSID and security details and configure them manually, which adds a layer of obscurity. This is why disabling SSID broadcast is the best action to prevent neighbors from discovering your wireless network. Enabling SSID broadcast would make it easy to find, changing the SSID name only changes what it's called but not its visibility, and MAC filtering addresses access after discovery rather than preventing discovery itself.

2. IPv6-to-IPv4 translation is best described by which statement?

A. IPv6 packets are translated to IPv4 packets, and vice versa.

B. IPv6 runs only on dedicated links separate from IPv4.

C. IPv4 is encapsulated in IPv6 only.

D. Translation happens via NAT64 only.

Bidirectional translation between IPv6 and IPv4 is what enables communication between networks using different IP versions. In IPv6-to-IPv4 translation, a translator converts IPv6 packets into IPv4 packets so the IPv4 network can route them, and it also converts IPv4 responses back into IPv6 for the IPv6 network. This two-way translation is what makes interoperation possible, regardless of which side initiates the traffic. The idea that IPv6 runs on dedicated links separate from IPv4 is inaccurate because networks commonly interconnect both protocols and use translation or dual-stack to enable communication. Encapsulating IPv4 inside IPv6 describes tunneling rather than translation, which is a different approach and not what IPv6-to-IPv4 translation focuses on. While NAT64 is a well-known method for enabling IPv6 clients to reach IPv4 servers, it isn't the only translation mechanism available, so saying translation happens via NAT64 only is too narrow.

3. Which command provides security on the console?

A. Router(config-line)# password class

B. Router(config-line)# enable secret

C. Router(config)# banner motd #

D. Router(config)# hostname CL1

Requiring a password on the console line is how you control direct device access. On Cisco devices, you secure console access by configuring a password on the console line and enabling login so that anyone connecting to the console must enter that password. The command shown sets a password for the line, which is the step that actually enforces authentication at the console. In practice you'd apply it on the console line (line console 0), along with login, so the password prompt appears when someone connects via the console. Other options don't protect console access: enable secret guards privileged EXEC after you've logged in, not the initial console sign-on; a banner MOTD is just a message; and the hostname simply names the device.

4. DHCPACK: what does it indicate?

A. The DHCP server confirming that the address lease has been accepted

B. The client requesting to renew an address

C. A client initiating a message to find a DHCP server

D. The server offering an IP address

DHCPACK is the server's confirmation that the client's requested IP configuration has been accepted and is being applied. After the client discovers a server and the server offers an IP lease, the client requests to use that configuration. The server replies with DHCPACK to finalize the lease and provide the exact network parameters (IP address, subnet mask, default gateway, DNS servers, lease duration). Receiving the ACK means the client can configure its network interface with these values and start using the address. If the client is renewing a lease, it would send a renewal request, and the server would respond with DHCPACK or DHCPNAK accordingly. The other messages in the sequence—discovery and offer—are about finding a server and proposing a lease, not about final acceptance.

5. Which command sequence configures the router's hostname to CL1?

A. Router(config)# hostname CL1

B. Router(config)# set hostname CL1

C. Router(config-line)# hostname CL1

D. Router(config)# system hostname CL1

Setting a router's hostname is done by using the hostname command in global configuration mode. After entering configure terminal, you're in global config mode (prompt shows Router(config)#). Issuing the command hostname CL1 sets the device's name to CL1, and the prompt will reflect the new hostname. This is the proper, standard IOS syntax. The other options don't fit because they're not valid IOS commands or modes for changing the device name: there isn't a set hostname command in IOS, and configuring a hostname from line configuration mode (Router(config-line)#) is not allowed for the device identity. Using a system keyword (Router(config)# system hostname CL1) isn't valid syntax in IOS either.

6. Which command displays a message when the router is accessed?

A. Router(config)# banner motd #

B. Router(config)# hostname CL1

C. Router(config-line)# password class

D. Router(config)# banner login

When a user connects to a router, banners are used to present an important notice at the start of the session. The message of the day (MOTD) banner is specifically meant to display a message to anyone who accesses the device, regardless of whether they log in or what method they use (console or remote sessions). You configure it with banner motd and surround the message with a delimiter, for example banner motd #Your notice here#. This banner is shown as part of the session startup, so it appears whenever someone accesses the router. This is why it's the best fit for displaying a message when the router is accessed: it directly targets the access moment and conveys information before or as the session begins. The other options serve different purposes: changing the hostname only alters the device name; setting a line password protects access but does not display a message; and a banner at login would appear before authentication, which is a different point in the access sequence.

7. On a router with an enabled secret password but no console password, which mode is displayed upon boot?

A. User EXEC mode

B. Privileged EXEC mode

C. Global Configuration mode

D. ROM Monitor mode

When a Cisco router boots normally, you start in User EXEC mode. If there's no console password, you log in without entering a password and you land at the basic, non-privileged prompt (Router>). The enable secret password is used to move up to Privileged EXEC mode; you must type enable and (when prompted) provide that secret to reach the privileged prompt (Router#). Global Configuration mode is accessed from Privileged EXEC by entering configure terminal, so you won't see that right after boot. ROM Monitor mode is a recovery/diagnostic state used only if the device can't boot IOS properly, not a normal startup state. So the mode shown upon boot in this scenario is User EXEC mode.

8. What is indicated by the term throughput?

A. The measure of the bits transferred across the media over a given period of time

B. The maximum number of simultaneous connections

C. The latency of packets traveling across the network

D. The amount of data stored on the device

Throughput is the actual rate at which data is successfully transferred across the network in a given period, typically measured in bits per second. It reflects real performance, including any protocol overhead, retransmissions, and congestion, not just the theoretical capacity. That's why the description about the measure of bits transferred across the media over a given period fits best. The other ideas describe different things: the maximum number of simultaneous connections is about concurrency, not data rate; latency is the time delay for a packet to travel; and the amount of data stored on the device is storage capacity. Throughput can be affected by network conditions and is often less than the maximum bandwidth, but it represents the actual data flow.

9. Convert the hexadecimal value 0x2DF to decimal.

A. 735

B. 733

C. 745

D. 720

Converting a hex value to decimal uses base-16 positional weights. Each digit represents a power of 16: the leftmost digit is in the 16^2 place, the middle in 16^1, and the rightmost in 16^0. For 0x2DF, the digits are 2, D, F. Compute the contributions: 2 × 256 = 512, D is 13 so 13 × 16 = 208, and F is 15. Add them up: 512 + 208 + 15 = 735. So the decimal value is 735. If you swap the last digit to D, you'd get 512 + 208 + 13 = 733. If the last digit were 0, you'd get 512 + 208 + 0 = 720. A value like 745 would require a last digit of 25 decimal, which isn't a valid hex digit (hex digits only go from 0 to 15), so that option doesn't fit.

10. Which networking trend enables each customer to have a separate web server on a single physical CPU?

A. virtualization

B. clustering

C. load balancing

D. multicast

Virtualization enables multiple isolated environments on a single physical server. A hypervisor assigns each customer their own virtual machine with its own web server, all running on the same physical CPU while remaining isolated from each other. This lets different customers have independent web servers without needing separate physical machines, and resources can be allocated or throttled to meet performance needs. Clustering would spread services across multiple physical machines, not give each customer a separate server on one CPU. Load balancing distributes requests among several servers rather than creating separate, isolated servers on the same hardware. Multicast is about delivering data to many recipients on a network, not hosting isolated per-customer servers.

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://netessentialverale.examzify.com

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