

BOSON 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.

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

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1. Which EIGRP command is used to determine whether feasible successors can be used for unequal-cost load balancing?
 - A. variance
 - B. bandwidth
 - C. feasible
 - D. redistribute
2. Which MAC address represents an IP multicast address?
 - A. CF-00-00-00-00-00
 - B. 01-00-5E-0F-0F-0F
 - C. FF-FF-FF-FF-FF-FF
 - D. 00-00-0C-F0-F0-F0
3. You are installing three 802.11b WAPs; which channel set will ensure nonoverlapping operation?
 - A. 1, 7, 13
 - B. 1, 2, 3
 - C. 1, 6, 11
 - D. 2, 4, 6
4. Which First Hop Router Protocol uses the virtual MAC address 0000.5E00.0101?
 - A. GLBP
 - B. HSRP
 - C. VRRP
 - D. GLBP and HSRP
5. Which IPv6 prefix is globally routable?
 - A. 2000::/3
 - B. FE80::/10
 - C. FC00::/8
 - D. FF02::/16

- 6. Which actions describe features typically supported by a Cisco next-generation intrusion prevention system beyond traditional IPS capabilities?**
- A. Gather and use host-based information for context
 - B. Filter URIs using reputation scores
 - C. Both A and D
 - D. Logging events for later review by security team
- 7. What is the maximum VLAN ID defined by 802.1Q?**
- A. 4094
 - B. 0
 - C. 1
 - D. The native VLAN
- 8. Which management frame is sent by the wireless client to discover nearby networks?**
- A. beacons
 - B. probe requests
 - C. deauthentications
 - D. association responses
- 9. RTS, CTS, ACK, and PS Poll are examples of which type of frames?**
- A. Beacons
 - B. Management frames
 - C. Data frames
 - D. Control frames
- 10. In an 802.11 MAC frame, what is the first component?**
- A. Frame Control
 - B. Duration
 - C. FC
 - D. Address

Answers

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

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Explanations

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1. Which EIGRP command is used to determine whether feasible successors can be used for unequal-cost load balancing?

- A. variance**
- B. bandwidth
- C. feasible
- D. redistribute

Unequal-cost load balancing in EIGRP relies on finding feasible successors—backup routes whose metric is within reach of the current best path. A feasible distance (FD) is the metric of the best path, and a feasible successor is any alternative path with a metric less than that FD. The variance command sets a multiplier that expands which alternative paths EIGRP considers for load balancing. By increasing variance above 1, EIGRP accepts and can use multiple paths with metrics up to FD multiplied by the variance, enabling unequal-cost paths to share traffic. So this command is the one that governs whether feasible successors can be used for UCMP. The other options don't control this behavior: bandwidth is an interface parameter for metric calculation, redistribute moves routes between protocols, and feasible isn't a standalone command used this way.

2. Which MAC address represents an IP multicast address?

- A. CF-00-00-00-00-00
- B. 01-00-5E-0F-0F-0F**
- C. FF-FF-FF-FF-FF-FF
- D. 00-00-0C-F0-F0-F0

IPv4 multicast at the Ethernet layer uses a specific MAC address prefix to indicate a group delivery. The first three octets must be 01-00-5E, signaling that this is a multicast MAC. The remaining 23 bits carry the lower part of the IP multicast group address, but the key identifying feature is that 01-00-5E prefix. Among the options, the one that begins with 01-00-5E is the multicast MAC. The other addresses do not use this multicast prefix (one is a broadcast address, one is a unicast-like address, and the last is not in the multicast range), so they do not represent an IP multicast MAC.

3. You are installing three 802.11b WAPs; which channel set will ensure nonoverlapping operation?

- A. 1, 7, 13
- B. 1, 2, 3
- C. 1, 6, 11**
- D. 2, 4, 6

In the 2.4 GHz band, each Wi-Fi channel is about the same width, so neighboring channels overlap. To prevent interference when you have three APs, you must pick channels whose spectral footprints don't touch. The reliable way is to space the chosen channels by a fixed gap so there's a guard between their bands. This spacing pattern—three channels evenly separated—ensures no overlap among the three APs' transmissions. Other channel sets place channels too close to one another, which leads to overlapping spectra and reduced performance. So the best choice is the set that follows this even spacing of channels, guaranteeing non-overlapping operation across the three APs.

4. Which First Hop Router Protocol uses the virtual MAC address 0000.5E00.0101?

- A. GLBP
- B. HSRP
- C. VRRP**
- D. GLBP and HSRP

In VRRP, the group presents a shared virtual MAC address that represents the virtual router. The virtual MAC follows the pattern 00-00-5E-00-01-XX, where XX is the VRID. The address 00-00-5E-00-01-01 is the VRID 1 virtual MAC, which is used by the master VRRP router to respond to traffic addressed to the virtual MAC. Other FHRP protocols use different MAC schemes, so this specific prefix and tail belong to VRRP. That's why the correct protocol is VRRP.

5. Which IPv6 prefix is globally routable?

- A. 2000::/3**
- B. FE80::/10
- C. FC00::/8
- D. FF02::/16

IPv6 addresses have different scopes, and which ones can be routed globally depends on that scope. Global unicast addresses are intended to be reachable on the public Internet, and their assigned prefix is 2000::/3. This range is specifically designated for globally routable addresses, covering addresses that can be routed across providers and networks worldwide. In contrast, FE80::/10 are link-local addresses that stay on the local network segment and aren't forwarded by routers; FC00::/7 (private use) are unique local addresses meant for private networks and aren't globally routable; FF02::/16 are multicast addresses used for one-to-many delivery, not unicast routing. So the prefix that makes an IPv6 address globally routable is 2000::/3.

6. Which actions describe features typically supported by a Cisco next-generation intrusion prevention system beyond traditional IPS capabilities?

- A. Gather and use host-based information for context
- B. Filter URIs using reputation scores
- C. Both A and D**
- D. Logging events for later review by security team

The main concept is that next-generation intrusion prevention systems extend beyond traditional packet-by-packet detection by adding endpoint context and stronger incident-handling capabilities. Gathering host-based information for context lets the system correlate network events with the state of the endpoints, improving accuracy and enabling more informed decisions. Logging events for later review supports security operations and forensic analysis, providing a robust trail for investigators and SOC teams. Together, these two features embody how NGIPS enhances visibility and response compared to traditional IPS. Filtering URIs using reputation scores tends to fall under web filtering or reputation services rather than core NGIPS context and forensic capabilities, so it isn't the best pair to represent how NGIPS goes beyond traditional intrusion prevention.

7. What is the maximum VLAN ID defined by 802.1Q?

- A. 4094**
- B. 0
- C. 1
- D. The native VLAN

802.1Q carries a 12 bit VLAN Identifier in its tag, which gives $2^{12} = 4096$ possible values. Of these, two values are not usable as normal VLAN IDs: 0 is reserved for priority tagging (frames tagged only with priority, not a specific VLAN), and 4095 is reserved for special uses and cannot be assigned to a standard VLAN. That leaves 1 through 4094 as valid VLAN IDs, so the maximum assignable VLAN ID is 4094. The other options aren't the maximum, and the concept of the native VLAN is about untagged frames on a trunk, not a numeric maximum.

8. Which management frame is sent by the wireless client to discover nearby networks?

- A. beacons
- B. probe requests**
- C. deauthentications
- D. association responses

Discovery of nearby networks happens when the client actively asks for them by sending a probe request. In 802.11, access points periodically broadcast beacons to advertise their networks, but a client that wants to find networks quickly can send a probe request to elicit responses from nearby APs. APs that hear the probe reply with probe responses (or with their beacons if the network is already known). The other frames have different roles: beacons come from APs to advertise networks, deauthentication frames terminate or reset connections, and association responses are sent by the AP after a client tries to join a network.

9. RTS, CTS, ACK, and PS Poll are examples of which type of frames?

- A. Beacons
- B. Management frames
- C. Data frames
- D. Control frames**

In 802.11 networking, frames are categorized as control, data, or management. The frames RTS, CTS, ACK, and PS-Poll are all about coordinating transmission and signaling status rather than carrying actual user data. RTS and CTS form a handshake to reserve the channel and reduce collisions, ACK acknowledges receipt of a data frame, and PS-Poll helps a power-saving station retrieve pending frames from the access point. This focus on control of medium access and transmission flow is what makes them control frames. For context, data frames carry the user payload, and management frames (like beacons) handle network organization and maintenance.

10. In an 802.11 MAC frame, what is the first component?

- A. Frame Control
- B. Duration
- C. FC**
- D. Address

The first component is the Frame Control field, a two-byte portion at the very start of the MAC header. It encodes the protocol version, frame type, subtype, and several control flags (ToDS, FromDS, More Frags, Retry, Power Mgmt, More Data, Protected Frame, and Order). Reading this field first tells the receiver how to interpret the rest of the frame and what kind of frame it is (management, control, or data). In diagrams and standards this field is commonly abbreviated FC, which is why that option matches the first component. Immediately after FC comes the duration field, used for NAV, and then the address fields follow.

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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://boson.examzify.com>

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

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