CISCO LEARNING NETWORK PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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Table of Contents

Copyright 1

Table of Contents 2

Introduction 3

How to Use This Guide 4

Questions 5

Answers 8

Explanations 10

Next Steps 16

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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. Which encoding formats are commonly supported by next-generation programmatic interfaces?

A. CSV and Text

B. XML and JSON

C. Only HTML

D. Binary and Plain Text

2. What best describes platforms or solutions driven by an object model that do not use YANG?

A. Model Driven Programmability

B. REST APIs

C. JSON data structures

D. CLI-based management

3. What element does the MAC address table primarily manage?

A. IP addresses

B. Layer 2 addresses

C. Routing paths

D. Subnet masks

4. What are three focus areas for Cisco DNA Center Assurance and Analytics?

A. End-to-end visibility, Predict performance, Historical reporting

B. End-to-end visibility, Network speed improvement, Predict performance

C. End-to-end visibility, Predict performance, Streaming telemetry

D. Basic troubleshooting, Network speed optimization, Real-time alerts

5. What command applies a distribute list specifically to OSPF?

A. network distribute-list 1 in

B. distribute-list 1 out

C. distribute-list prefix-list

D. apply distribute-list 1

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6. Under what circumstances should auto-anchor mobility be implemented?

A. To enhance Wi-Fi signal strength

B. To limit guest access through a corporate firewall

C. For improved VoIP call quality

D. To enable VPN connections

7. What protocol employs a pull model for sending multicast traffic?

A. PIM-SM

B. IGMP

C. RTP

D. PIM-DM

8. Which type of scanning occurs when wireless clients perform intercontroller layer 2 roaming?

A. Active Scanning

B. Passive Scanning

C. Hybrid Scanning

D. Continuous Scanning

9. Which command is used to verify the status of IKE peering security associations?

A. show crypto sa

B. show crypto isakmp sa

C. show ipsec sa

D. show ipsec sa detail

10. What is an essential characteristic of OpenFlow?

A. It is primarily focused on device security

B. It allows control over network traffic via programmable flows

C. It provides a user-friendly graphical interface

D. It facilitates data analytics

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Answers

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

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Explanations

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1. Which encoding formats are commonly supported by next-generation programmatic interfaces?

A. CSV and Text

B. XML and JSON

C. Only HTML

D. Binary and Plain Text

Next-generation programmatic interfaces, such as RESTful APIs and others, commonly support XML and JSON as encoding formats due to their flexibility and widespread adoption in web services. XML (eXtensible Markup Language) is a markup language that facilitates the structured representation of data, allowing for complex data types and hierarchical structures. It has been used in various applications but can be verbose, which may lead to higher bandwidth usage compared to other formats. JSON (JavaScript Object Notation), on the other hand, has gained prominence for its lightweight nature and ease of integration with JavaScript, making it particularly suitable for web applications. Its straightforward syntax not only enhances readability but also simplifies data manipulation, which is essential for developers working with APIs. These two formats are recognized for their ability to encapsulate structured data efficiently, making them favorable choices for modern APIs where data interchange is frequent. Additionally, the popularity of JSON in particular aligns closely with the demands of developers seeking performance and simplicity in data handling. Other options like CSV and Text might be supported for specific use cases but are not standard for most programmatic interfaces. HTML is primarily designed for displaying content on the web, not for data interchange, and thus isn't typically used in programmatic contexts. Binary and Plain Text formats

2. What best describes platforms or solutions driven by an object model that do not use YANG?

A. Model Driven Programmability

B. REST APIs

C. JSON data structures

D. CLI-based management

Platforms or solutions driven by an object model that do not use YANG are best described by Model Driven Programmability. This approach allows for the management and operation of network devices and services through a data model that is independent of the specific protocols or syntaxes used. Model Driven Programmability relies on structured data models that can be manipulated programmatically, enabling the representation of network resources as objects. While YANG is a popular data modeling language for network configuration and state data, the concept of Model Driven Programmability encompasses any method that allows for this object-oriented manipulation of data, regardless of whether YANG is utilized. The other options highlight specific technologies or methodologies but do not encompass the broader concept of using an object model for programmability. REST APIs form a way to interact with resources over the web but do not specifically relate to object modeling without YANG. JSON data structures are a format for data exchange and do not inherently describe an object model or address programmability. CLI-based management relies on command-line interfaces, which do not involve object models in the same way that programmability does.

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3. What element does the MAC address table primarily manage?

A. IP addresses

B. Layer 2 addresses

C. Routing paths

D. Subnet masks

The MAC address table primarily manages Layer 2 addresses, which are the hardware addresses used at the data link layer of the OSI model. MAC addresses are unique identifiers assigned to network interfaces for communications on the physical network segment. The purpose of the MAC address table, also known as the Content Addressable Memory (CAM) table, is to facilitate the forwarding of frames between devices on the same local area network (LAN). When a switch receives a frame, it examines the source MAC address and records it in the MAC address table along with the associated port. This allows the switch to intelligently forward frames only to the port where the destination MAC address is connected, rather than flooding all ports. This efficient management of Layer 2 addresses helps minimize unnecessary traffic on the network and increases overall performance. In contrast, IP addresses, routing paths, and subnet masks pertain to Layer 3 protocols and higher, which are not managed by the MAC address table. Therefore, understanding that the MAC address table deals specifically with Layer 2 addresses is key to understanding how data is managed in Ethernet networks.

4. What are three focus areas for Cisco DNA Center Assurance and Analytics?

A. End-to-end visibility, Predict performance, Historical reporting

B. End-to-end visibility, Network speed improvement, Predict performance

C. End-to-end visibility, Predict performance, Streaming telemetry

D. Basic troubleshooting, Network speed optimization, Real-time alerts

The correct answer highlights three critical focus areas of Cisco DNA Center Assurance and Analytics: end-to-end visibility, predictive performance, and streaming telemetry. End-to-end visibility is essential because it allows network administrators to have a comprehensive view of network performance and user experience across all devices and segments. This visibility is crucial for identifying issues and understanding how different components of the network interact. Predict performance is another vital aspect, as it enables proactive management of the network by forecasting potential issues before they impact users. This approach leverages historical data and trends to anticipate network behaviors, allowing for early interventions to maintain optimal performance. Streaming telemetry is significant because it facilitates the real-time collection of data from devices for analysis and monitoring. This technology allows for continuous insights into network conditions, improving the responsiveness to changes and incidents as they occur. Understanding these focus areas helps network professionals utilize Cisco DNA Center effectively, ensuring a reliable and efficient network environment.

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5. What command applies a distribute list specifically to OSPF?

A. network distribute-list 1 in

B. distribute-list 1 out

C. distribute-list prefix-list

D. apply distribute-list 1

The command that specifically applies a distribute list to OSPF is "distribute-list 1 out." This command is used to control the distribution of routing information in OSPF by filtering the routes that the OSPF process advertises to its neighboring routers. When you apply a distribute list in this context, the number "1" refers to an access list number or a prefix list identifier that has been defined elsewhere in the configuration. By using "out," the command specifies that the filtering should apply to the routes being sent out of the router to its OSPF neighbors. This functionality is crucial for managing which routes are advertised, helping to ensure that only relevant or desired routes are shared with neighboring routers, thus controlling the routing table size and preserving bandwidth. In contrast, the other options do not appropriately fit the context of OSPF. For instance, using "network distribute-list 1 in" is not a valid command syntax for OSPF; OSPF does not use the "network" keyword in this manner. The third option, "distribute-list prefix-list," lacks the necessary context such as "in" or "out" to define the direction, making it incomplete for the specific application in OSPF. Lastly

6. Under what circumstances should auto-anchor mobility be implemented?

A. To enhance Wi-Fi signal strength

B. To limit guest access through a corporate firewall

C. For improved VoIP call quality

D. To enable VPN connections

Auto-anchor mobility should be implemented primarily to limit guest access through a corporate firewall, particularly in environments where secure guest access to the network is required while maintaining the integrity and security of the internal network. This feature allows for the centralization of wireless guest traffic at a single point, ensuring that guest users can access the internet while being restricted from accessing internal corporate resources. By utilizing auto-anchor mobility, organizations can manage guest accounts effectively, applying security policies that delineate guest traffic from critical internal traffic. This enhances security protocols since guest users can be redirected to a designated firewall that strictly manages their access rights. Thus, the system can enforce separate paths for guests, maintaining a high level of protection for the internal network while providing the necessary services to guests. In contrast, while enhancing Wi-Fi signal strength, improving VoIP call quality, and enabling VPN connections are important aspects of network management, they do not specifically relate to the primary function and benefits of implementing auto-anchor mobility in the context of guest access management.

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7. What protocol employs a pull model for sending multicast traffic?

A. PIM-SM

B. IGMP

C. RTP

D. PIM-DM

The correct answer is PIM-SM (Protocol Independent Multicast - Sparse Mode), which employs a pull model for sending multicast traffic. In PIM-SM, when a host wants to receive multicast traffic, it sends a join message to the nearest multicast router. This initiates a process where the router pulls the multicast data from the source only when there is at least one receiver (or more) interested in that data. This means that multicast traffic is sent only after the group membership has been established, conserving bandwidth and ensuring efficient use of network resources. PIM-SM is particularly well-suited for environments where multicast group memberships can be sparse—meaning that not all network segments will have members interested in the multicast traffic. This contrasts with protocols that might continuously send multicast traffic regardless of group membership, leading to inefficient use of network resources. In contrast, other options like IGMP (Internet Group Management Protocol) are primarily used to manage group memberships rather than handling the multicast data transmission itself. RTP (Real-time Transport Protocol) is used for delivering audio and video over IP networks, but it does not specifically handle the management of multicast traffic distribution through a pull model. PIM-DM (Protocol Independent Multicast - Dense Mode) uses a push model

8. Which type of scanning occurs when wireless clients perform intercontroller layer 2 roaming?

A. Active Scanning

B. Passive Scanning

C. Hybrid Scanning

D. Continuous Scanning

When wireless clients perform intercontroller layer 2 roaming, passive scanning occurs. This type of scanning involves the clients listening for beacons from the access points, which broadcast their presence and information such as available services and the network name. During the roaming process, the client device searches for beacons from nearby access points to determine whether it can switch to a more suitable access point that may provide better signal strength or faster connectivity. Passive scanning is essential in environments where clients frequently switch between access points, as it helps in quickly identifying available networks without actively probing them. It allows the client to maintain connection continuity while addressing changes in the wireless landscape as it roams. Active scanning, in contrast, would involve the client sending out probe requests to actively solicit responses from nearby access points. Hybrid scanning combines both methods for a more comprehensive approach, while continuous scanning refers to the ongoing monitoring of available access points without focusing on roaming specifically. Understanding these differences is critical for optimizing wireless network performance and ensuring seamless connectivity for users.

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9. Which command is used to verify the status of IKE peering security associations?

A. show crypto sa

B. show crypto isakmp sa

C. show ipsec sa

D. show ipsec sa detail

The command used to verify the status of IKE (Internet Key Exchange) peering security associations is "show crypto isakmp sa." This command is crucial because it provides an overview of the IKE security associations that have been established for a VPN (Virtual Private Network) connection. When you execute this command, it displays information such as the peer's IP address, the current state of the association (whether it is active or not), and other parameters like the lifetime of the security association. This is essential for troubleshooting and ensuring that IKE negotiations are proceeding as expected and that the endpoints can communicate securely. Understanding the status of IKE peering is vital for network security, as it indicates whether the cryptographic parameters are correctly established and maintained. This command specifically targets the IKE layer of the VPN process, while the other choices refer to different aspects of security associations, such as IPsec or more general security associations, which don't provide the specific IKE information needed for debugging or verification of IKE peering.

10. What is an essential characteristic of OpenFlow?

A. It is primarily focused on device security

B. It allows control over network traffic via programmable flows

C. It provides a user-friendly graphical interface

D. It facilitates data analytics

OpenFlow is a foundational technology in software-defined networking (SDN) that enables the separation of the control layer and the data layer in network devices. Its essential characteristic lies in its ability to allow network administrators to control network traffic through programmable flows. By using OpenFlow, administrators can define how packets should be processed or forwarded based on various criteria, such as source and destination IP addresses or port numbers. This programmability means that network policies and behaviors can be dynamically adjusted without needing to physically reconfigure devices. In essence, OpenFlow provides a protocol for communication between the control plane, which makes decisions about where traffic is sent, and the data plane, which forwards traffic to its destination. This greater control and flexibility is what makes OpenFlow a critical component for modern network architectures, enabling more efficient resource utilization, quick policy changes, and the implementation of innovative network services.

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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:

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

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