

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.

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. In the context of Cisco DNA Center APIs, what does API stand for?**
 - A. Application Protocol Integration
 - B. Application Programming Interface
 - C. Advanced Processing Interface
 - D. Automated Program Interface
- 2. Which SD-WAN component is responsible for the initial setup of policies before deployment?**
 - A. vSmart
 - B. vManage
 - C. vEdge
 - D. vBond
- 3. Which standard identifies a hop-by-hop technique for data path virtualization?**
 - A. 802.1Q
 - B. 802.1X
 - C. 802.1P
 - D. 802.1S
- 4. What TCP port does BGP use for establishing a session?**
 - A. Port 80
 - B. Port 443
 - C. Port 179
 - D. Port 8080
- 5. Which of the following options is NOT a characteristic of the Orchestration Plane?**
 - A. First point of Authentication
 - B. Distributes vSmart controllers to vEdge routers
 - C. Authorizes all control connections
 - D. Monitors network performance data

- 6. Which function is typically associated with the Network Health Overview API?**
- A. Device configuration
 - B. Monitoring network performance
 - C. Changing network settings
 - D. Establishing remote connections
- 7. Which statement about link-state routing protocols is accurate?**
- A. They require less bandwidth than distance-vector protocols.
 - B. They send full routing tables periodically.
 - C. They flood link-state advertisements to share information.
 - D. They do not maintain a complete topology of the network.
- 8. Which two tools require a software agent to be installed on all devices you want to manage?**
- A. Chef and Puppet
 - B. Ansible and Saltstack
 - C. NETCONF and RESTCONF
 - D. YANG and JSON
- 9. Which RESTCONF parameter specifies the number of nest levels returned for a GET method?**
- A. level
 - B. depth
 - C. nesting
 - D. size
- 10. Which command reveals the current configuration of IP routing on a Cisco device?**
- A. show ip route
 - B. show ip config
 - C. display routing -configuration
 - D. view ip routing status

Answers

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

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Explanations

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1. In the context of Cisco DNA Center APIs, what does API stand for?

- A. Application Protocol Integration
- B. Application Programming Interface**
- C. Advanced Processing Interface
- D. Automated Program Interface

The term API stands for Application Programming Interface. This is a set of rules and protocols that allows different software applications to communicate with each other. In the context of Cisco DNA Center APIs, these interfaces are crucial for enabling developers and network administrators to automate processes, integrate systems, and access the functionalities of the Cisco DNA Center platform programmatically. By using APIs, one can create scripts or applications that interact with Cisco's network devices and services, facilitating tasks such as network configuration, monitoring, and management. Therefore, understanding that API refers to Application Programming Interface is fundamental for working with Cisco DNA Center APIs effectively. This understanding allows professionals to leverage the full capabilities of the platform and enhance their IT workflows.

2. Which SD-WAN component is responsible for the initial setup of policies before deployment?

- A. vSmart
- B. vManage**
- C. vEdge
- D. vBond

The vManage component of an SD-WAN architecture is crucial for managing the overall network lifecycle, including the initial setup of policies before deployment. It serves as the centralized management console that enables operators to create, monitor, and modify the policies that govern how traffic flows through the network. By leveraging vManage, network administrators can define security policies, application-aware routing policies, and other configurations necessary for optimal network performance. These policies can be pushed to the vEdge devices upon deployment, ensuring that all connected sites operate under the same guidelines and rules right from the start. In contrast, while components like vSmart and vBond play important roles in the SD-WAN ecosystem—such as policy distribution and establishing secure connections—they are not primarily responsible for the initial configuration and policy setup. The vEdge devices are responsible for forwarding traffic and implementing the policies received from vManage but do not engage in the policy creation or initial setup process.

3. Which standard identifies a hop-by-hop technique for data path virtualization?

- A. 802.1Q**
- B. 802.1X
- C. 802.1P
- D. 802.1S

The correct choice is based on the fact that IEEE 802.1Q is the standard that specifies VLAN (Virtual Local Area Network) tagging for Ethernet frames, thereby providing a method for data path virtualization. This standard enables the creation of virtual networks over a single physical network infrastructure. The "hop-by-hop" technique refers to the process where data packets are tagged at each switch (hop) they traverse, ensuring that they remain associated with the correct VLAN throughout their journey across the network. By implementing 802.1Q, a network can efficiently separate different types of traffic and improve overall network management through virtualization. This is crucial for maintaining data integrity and network performance in environments that require multiple, isolated networks sharing the same physical resources. The other standards listed do not pertain specifically to the hop-by-hop technique for data path virtualization. For instance, 802.1X is focused on network access control and authentication, while 802.1P deals with traffic prioritization through QoS (Quality of Service). On the other hand, 802.1S addresses Multiple Spanning Tree Protocol (MSTP), which optimizes the spanning tree operation across multiple VLANs but does not directly relate to hop-by-hop data path virtualization.

4. What TCP port does BGP use for establishing a session?

- A. Port 80
- B. Port 443
- C. Port 179**
- D. Port 8080

Border Gateway Protocol (BGP) uses TCP port 179 to establish sessions between BGP peers. This is a well-defined standard within the protocol specifications, and all BGP implementations are designed to use this specific port for communication. The choice of port 179 is crucial because it allows for reliable transmission of routing information between different autonomous systems on the internet. Using TCP ensures that BGP can handle issues such as packet loss and retransmission, which are imperative for maintaining consistent routing information. By establishing connections on this designated port, routers can efficiently manage and exchange routing updates, which is essential for the dynamic routing process across diverse networks. This port assignment is part of the Internet Assigned Numbers Authority (IANA) Service Name and Transport Protocol Port Number Registry, reflecting the standardization and widespread adoption of BGP in internet routing practices.

5. Which of the following options is NOT a characteristic of the Orchestration Plane?

- A. First point of Authentication
- B. Distributes vSmart controllers to vEdge routers
- C. Authorizes all control connections
- D. Monitors network performance data**

The Orchestration Plane is primarily responsible for managing control plane data, which includes functions such as device authentication, distribution, and authorization. It serves as the central management component that performs critical tasks to maintain the overall health and organization of the network. The role of the Orchestration Plane includes authenticating devices before they can join the network, ensuring that vSmart controllers are properly distributed to vEdge routers, and authorizing connections between different components of the network. This functionality is vital for maintaining security and ensuring that the various elements of the network can communicate effectively. On the other hand, monitoring network performance data typically falls under the responsibilities of other components, such as the data plane or monitoring tools that analyze traffic and network behavior, rather than the Orchestration Plane itself. Therefore, the ability to monitor performance does not align with the primary characteristics of the Orchestration Plane, making it the correct choice for this question.

6. Which function is typically associated with the Network Health Overview API?

- A. Device configuration
- B. Monitoring network performance**
- C. Changing network settings
- D. Establishing remote connections

The Network Health Overview API is primarily focused on monitoring network performance. This API provides insights into various metrics and health indicators of the network, which helps network administrators assess the overall status and effectiveness of their network infrastructure. By utilizing this API, you can gather data related to various performance parameters, such as latency, bandwidth usage, and the status of devices, which are crucial for maintaining a robust network environment. This monitoring capability allows for proactive management, as network issues can be identified and addressed before they escalate into more significant problems. The focus on performance monitoring rather than configuration changes or remote connection setup illustrates the API's role in providing visibility into the network's operational health.

7. Which statement about link-state routing protocols is accurate?

- A. They require less bandwidth than distance-vector protocols.
- B. They send full routing tables periodically.
- C. They flood link-state advertisements to share information.**
- D. They do not maintain a complete topology of the network.

Link-state routing protocols operate by sharing information through a process known as flooding, where link-state advertisements (LSAs) are sent throughout the network to inform all routers about the state of each link in the network. This approach allows every router to have a complete and consistent view of the network topology, enabling them to calculate the shortest path to each destination using algorithms like Dijkstra's. The flooding of LSAs is crucial for maintaining accurate routing information and successful communication between routers. By disseminating details about directly connected links and their statuses, all routers can independently compute the best paths based on the complete topology they receive. This ensures that routing decisions are based on the most current and reliable data, ultimately enhancing the overall efficiency and reliability of the network. Other options, while related to the characteristics of routing protocols, do not accurately describe link-state protocols in this context. For example, link-state protocols typically consume more bandwidth than distance-vector protocols due to the need to send advertisements for changes in the link state rather than periodic full routing tables. They also maintain a complete topology of the network rather than lacking it.

8. Which two tools require a software agent to be installed on all devices you want to manage?

- A. Chef and Puppet**
- B. Ansible and Saltstack
- C. NETCONF and RESTCONF
- D. YANG and JSON

The correct choice emphasizes the need for a software agent on the managed devices, which is a key characteristic of both Chef and Puppet. These are configuration management tools designed to automate the deployment and management of applications and systems. They require an agent installed on each device to facilitate communication and execute tasks. The agent is responsible for applying the defined configurations and reporting back to the management server. In contrast, Ansible and Saltstack can operate in an agentless mode, allowing them to manage devices without requiring an agent. Instead, they often leverage existing protocols like SSH to communicate with the devices, which differentiates them from Chef and Puppet. NETCONF and RESTCONF are protocols used for network configuration and management but do not inherently require a software agent, as they can work over standard communications mechanisms. YANG and JSON are data modeling languages and formats that are not directly involved in the management of devices, and thus do not pertain to the requirement of having software agents installed.

9. Which RESTCONF parameter specifies the number of nest levels returned for a GET method?

- A. level
- B. depth**
- C. nesting
- D. size

The parameter that specifies the number of nest levels returned for a GET method in RESTCONF is "depth." This parameter allows clients to control how much of the hierarchical data is returned in the response. By adjusting the depth value, a user can specify how many levels of nested resources they want to retrieve. This is especially useful in complex data models where a resource can have multiple levels of associated data, allowing for efficient data retrieval and reducing the amount of unnecessary data transfer. Using the depth parameter, clients can optimize their requests according to their specific needs, whether they desire an overview with shallow depth or detailed information with greater levels of nesting included in the response. The capability to define the depth level gives users flexibility in managing how they interact with RESTful APIs, ensuring they get the most pertinent data without overwhelming the API with too much detail all at once.

10. Which command reveals the current configuration of IP routing on a Cisco device?

- A. show ip route**
- B. show ip config
- C. display routing -configuration
- D. view ip routing status

The command "show ip route" is used to display the current routing table on a Cisco device, which includes all the routes known to the device, the metrics for those routes, and the administrative distances associated with each route. This command provides critical information about how packets will be forwarded through the network, including the destination networks and the next-hop addresses, as well as the interfaces through which those packets will travel. By running this command, network administrators can gather insights on the operational state of the routing protocols in use, the specific routes installed, and the preferred paths for outgoing traffic based on the routing decisions made by the device. The other options do not reflect valid commands within Cisco's IOS (Internetwork Operating System) for querying routing information. "show ip config" does not exist in Cisco IOS syntax, while "display routing -configuration" and "view ip routing status" are not recognized commands for obtaining routing table information. Understanding the functionality of the "show ip route" command is essential for effective troubleshooting and network management.

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://ciscolearningnet.examzify.com>

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

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