CISCO NETWORK PROGRAMMABILITY DESIGN AND IMPLEMENTATION SPECIALIST (NPDESI) PRACTICE TEST (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. **Which model describes a network architecture that separates control and data planes?**

   A. Layered Model

   B. OSI Model

   C. Control-Plane Model

   D. Software-Defined Networking Model

2. **In which type of request would you use 'X-Auth-Token' for authentication?**

   A. GET request

   B. POST request

   C. PUT request

   D. All of the above

3. **Which version of code is required for the ASA REST API?**

   A. 9.4.x and above

   B. 9.3(2) or 9.4(1) and above

   C. 9.4(5) and 9.5(0) and above

   D. None of the above

4. **What command is used to view current IP addresses and network interface status?**

   A. ifconfig

   B. ip addr

   C. route

   D. netstat

5. **In which way does agile project management differ from waterfall?**

   A. Agile is more adaptable to changes

   B. Waterfall requires less documentation

   C. Agile has less stakeholder involvement

   D. Waterfall allows for rapid prototyping

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6. Which of the following response codes indicates that the server cannot find the requested resource?

A. 200

B. 201

C. 404

D. 500

7. Which command is typically used to enable a network interface on a device?

A. ip link set up

B. interface enable

C. activate interface

D. network active

8. Which of the following is not a supported agent environment for Puppet Agent Installation?

A. Guestshell (Cisco Nexus N3k, N9k)

B. Open Agent Container (Cisco Nexus N5k, N6k, N7k)

C. IOS-shell (Cisco Nexus N3k, N9k)

D. Bash-shell (Cisco Nexus N3k, N9k)

9. What format is data returned in for the ASA REST API?

A. XML

B. JSON

C. HTML

D. None of the above

10. Which component is used to gather information about a device when using Puppet?

A. Puppet Agent

B. Puppet Facter

C. Cloud Master

D. Puppet Master

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Answers

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

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Explanations

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1. Which model describes a network architecture that separates control and data planes?

A. Layered Model

B. OSI Model

C. Control-Plane Model

D. Software-Defined Networking Model

The Software-Defined Networking (SDN) Model is designed specifically to separate the control plane from the data plane in network architecture. In traditional networking, both planes are typically integrated within the same physical devices (like routers and switches), where devices manage both the packet forwarding (data plane) and the routing decisions (control plane). In the SDN architecture, the control plane is abstracted and centralized, allowing it to be managed separately from the data plane, which remains distributed across the network devices. This separation enables more flexible and programmable network management, as the intelligence and policies can be maintained in a centralized controller, while network devices can focus solely on forwarding traffic based on the instructions received from the controller. This leads to enhanced scalability, easier network configuration, and improved operational efficiency. While the Layered Model and OSI Model describe various facets of network communication and functionality, they do not inherently define the separation of control and data planes. The Control-Plane Model might suggest an inclination towards control plane concepts but lacks the definitive structural representation of the separation present in SDN. Hence, the Software-Defined Networking Model is the most accurate choice in this context.

2. In which type of request would you use 'X-Auth-Token' for authentication?

A. GET request

B. POST request

C. PUT request

D. All of the above

The 'X-Auth-Token' is a common method used for authentication in many APIs, particularly those that follow REST architecture. This token is typically included in the header of the HTTP requests to authorize access to endpoints. When it comes to the types of requests — GET, POST, or PUT — using the 'X-Auth-Token' is not limited to just one specific type. All these request methods can require the token, as they may be interacting with protected resources on a server. For a GET request, the token is used to retrieve data securely, ensuring that only authenticated users have access. In the case of a POST request, the token helps authenticate the data being sent to the server, such as when creating or updating resources. Similarly, a PUT request, which often updates an existing resource, also uses the token to confirm that the request comes from an authenticated source. This capability across different types of requests illustrates the flexibility and importance of the 'X-Auth-Token' for maintaining secure interactions in an API environment. Hence, the use of 'X-Auth-Token' for authentication applies to all mentioned request types.

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3. Which version of code is required for the ASA REST API?

A. 9.4.x and above

B. 9.3(2) or 9.4(1) and above

C. 9.4(5) and 9.5(0) and above

D. None of the above

The requirement for the ASA REST API is that the device must be running version 9.3(2) or 9.4(1) and above. This means that the earliest version that supports the REST API is 9.3(2); thus, any version higher than this—including 9.4(1) and later—is also compatible. Cisco introduced REST API capabilities in its ASA software starting from these specific versions, allowing users to interact programmatically with the security appliances. This API support enhances automation, making it easier to integrate ASA devices into DevOps workflows and network management solutions. In this context, it is essential to keep the network security devices updated to take advantage of new features and enhancements, including those related to API capabilities. Therefore, selecting version 9.3(2) or 9.4(1) and above covers a broader range of releases that are compatible with REST API, which is crucial for network programmability initiatives.

4. What command is used to view current IP addresses and network interface status?

A. ifconfig

B. ip addr

C. route

D. netstat

The command used to view current IP addresses and network interface status is "ip addr." This command is part of the iproute2 package, which is commonly used in modern Linux distributions. When executed, "ip addr" displays a detailed list of all network interfaces along with their assigned IP addresses, status (up or down), and other relevant information. The ip command is more versatile compared to older commands like ifconfig, providing a consistent method for network management. It allows for both viewing and configuring network interfaces, making it essential for network operations. Other commands do serve different purposes: ifconfig, while historically used for similar tasks, has largely been deprecated in favor of the ip command in many systems. The route command is focused on displaying and manipulating the IP routing table, and netstat is used for network statistics, including current network connections and listening ports, rather than interface status and IP addressing. This specialization of each command is why "ip addr" is the most appropriate choice for this specific function.

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5. In which way does agile project management differ from waterfall?

A. Agile is more adaptable to changes

B. Waterfall requires less documentation

C. Agile has less stakeholder involvement

D. Waterfall allows for rapid prototyping

Agile project management distinguishes itself from the waterfall model primarily through its adaptability to change. Agile methodologies are designed to respond to changes in requirements and user feedback throughout the project lifecycle. This adaptability is a core principle of Agile, enabling teams to iterate on their work based on real-time information and stakeholder input. As iterations are completed, the team can revisit and modify the direction of the project according to new insights, which is essential in dynamic environments where requirements often evolve. In contrast, the waterfall model is a linear and sequential approach where changes can be challenging to implement once a phase is completed. This rigidity makes waterfall less suited for projects where requirements may shift during development. The other options highlight characteristics that are not accurate in terms of how agile and waterfall methodologies are defined and implemented. Waterfall typically involves a greater emphasis on documentation, agile values collaboration and stakeholder involvement, and waterfall is not particularly designed for rapid prototyping. Thus, option A stands out as the most accurate distinction between the two methodologies.

6. Which of the following response codes indicates that the server cannot find the requested resource?

A. 200

B. 201

C. 404

D. 500

The response code indicating that the server cannot find the requested resource is 404. This code is part of the HTTP status codes that clients receive from servers regarding the success or failure of a request. A 404 status specifically means that the server was unable to locate the resource that the client requested, which can occur for various reasons such as a typo in the URL or the resource being moved or deleted. In contrast, the other response codes signify different outcomes. For instance, a 200 status code indicates that the request has succeeded and the server has returned the requested resource. A 201 status is used when a new resource has been successfully created as a result of a request, indicating success in a different context. A 500 status code, on the other hand, denotes an internal server error, which means that there was an unexpected condition encountered by the server that prevented it from fulfilling the request. Understanding these codes is crucial for diagnosing issues with web communication and services.

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7. Which command is typically used to enable a network interface on a device?

A. ip link set up

B. interface enable

C. activate interface

D. network active

The command "ip link set up" is a standard command used in Linux-based systems to enable a network interface. This command is part of the larger suite of networking tools available in the Linux operating system. When you execute it, you are specifically instructing the system to set the link for the specified network interface to the "up" state, which means that the interface becomes operational and can start sending and receiving data. This command is particularly common in environments where interfaces are managed in a more granular, scriptable manner, as it allows for direct control over the state of network interfaces. In network programmability, knowing how to enable or disable interfaces programmatically can be crucial for automating network management tasks. The other options do not represent valid commands used in this context. "interface enable," "activate interface," and "network active" are not recognized commands in standard networking operations and would not accomplish the task of enabling an interface on a device. The correct understanding of the command's function reinforces the importance of being familiar with command-line utilities used in network administration and programmability.

8. Which of the following is not a supported agent environment for Puppet Agent Installation?

A. Guestshell (Cisco Nexus N3k, N9k)

B. Open Agent Container (Cisco Nexus N5k, N6k, N7k)

C. IOS-shell (Cisco Nexus N3k, N9k)

D. Bash-shell (Cisco Nexus N3k, N9k)

The correct answer indicates that IOS-shell (Cisco Nexus N3k, N9k) is not a supported agent environment for Puppet Agent Installation. This environment is specifically designed for Cisco IOS devices, which primarily operate on a different software architecture compared to the Linux-based environments typically utilized for Puppet installations. Puppet relies on a compatible host operating system to facilitate the management and configuration tasks it performs, which the IOS shell does not provide. Puppet agents are usually deployed in environments that support a full software stack, such as Linux or specific containerized environments. The Guestshell, Open Agent Container, and Bash-shell environments mentioned in the other options are designed to integrate with Puppet, allowing for configuration management and automation on those platforms. These environments support features such as running a full Linux user space or providing abstractions necessary for Puppet to function effectively, which is not true for the IOS-shell. This distinction ensures that Puppet can maintain its core functionalities of deploying agent configurations on devices that support them, ensuring compatibility and reliability in network automation and orchestration processes.

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9. What format is data returned in for the ASA REST API?

A. XML

B. JSON

C. HTML

D. None of the above

The ASA REST API is designed to return data in JSON format, which stands for JavaScript Object Notation. JSON is commonly used for APIs because it is lightweight, easy to read, and easily parsed by machines and humans alike. When a client makes a request to the ASA REST API, the server responds with data structured in JSON, facilitating seamless integration with various applications and ensuring efficient data exchange. This format is particularly favored in network programmability as it aligns well with JavaScript and other programming languages commonly used in web development. The other formats listed, such as XML and HTML, are not employed by the ASA REST API. XML, while a data format used in some other APIs, is heavier and more complex than JSON, leading to inefficiencies in many modern applications. HTML, on the other hand, is primarily a markup language meant for displaying content on the web, not for data interchange. Choosing JSON enhances interoperability across diverse programming environments, making it the preferred choice for the ASA REST API.

10. Which component is used to gather information about a device when using Puppet?

A. Puppet Agent

B. Puppet Facter

C. Cloud Master

D. Puppet Master

In the context of Puppet, Facter is the tool specifically designed to gather system information and environmental facts about a device. When a Puppet agent runs, it collects various details about the system, such as IP address, operating system, as well as custom facts defined by the user. This information is then sent to the Puppet Master, where it is used to compile the catalog that dictates how the system should be configured. This capability allows for dynamic configuration management based on the specific attributes of each node. Facter enhances Puppet's flexibility by ensuring that the configuration can adapt to the unique characteristics of the systems being managed, making it crucial for effective automation and orchestration. Other components, like the Puppet Agent, primarily focus on applying the configurations defined by the Puppet Master rather than gathering information. The Cloud Master is not a standard component in the Puppet architecture but often refers to other orchestrating systems in cloud environments. The Puppet Master is responsible for managing and distributing the configuration codes but does not gather the hardware and software facts about the devices; that is specifically the role of Facter.

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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://cisconpdesi.examzify.com

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

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