

# Cisco Network Programmability Design and Implementation Specialist (NPDESI) Practice Test (Sample)

Study Guide



**Everything you need from our exam experts!**

**This is a sample study guide. To access the full version with hundreds of questions,**

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**SAMPLE**

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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. Don't worry about getting everything right, 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, and take breaks to retain information better.**

## **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.**

## **7. Use Other Tools**

**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**

- 1. In which scenario would you use Visore?**
  - A. To browse Managed Objects in real-time.**
  - B. To generate reports on API usage.**
  - C. To set alerts for configuration changes.**
  - D. To automate endpoint configurations.**
- 2. What is not a Waterfall Development Process phase?**
  - A. Analysis**
  - B. Testing**
  - C. Design**
  - D. Sprints**
- 3. What functionality does RESTCONF provide for network management?**
  - A. Data retrieval in XML format**
  - B. Data retrieval in JSON format**
  - C. Secure shell access to network devices**
  - D. Batch configuration operations**
- 4. Which organization manages the development of the OpenFlow protocol?**
  - A. IEEE**
  - B. Open Networking Foundation (ONF)**
  - C. CCITT**
  - D. IETF**
- 5. Which of the following response codes indicates that the server cannot find the requested resource?**
  - A. 200**
  - B. 201**
  - C. 404**
  - D. 500**



- 6. Which tool validates YANG modules online?**
- A. Pyang**
  - B. Ydk-gen**
  - C. Ydk-py**
  - D. Yang Validator**
- 7. Which command allows you to print the working directory?**
- A. ls**
  - B. pwd**
  - C. grep**
  - D. print**
- 8. Which tool can be used to visually browse YANG models?**
- A. Yang Validator**
  - B. Ydk-py**
  - C. Yang Explorer**
  - D. Yang Sandbox**
- 9. What protocol provides a means to manage devices using XML and a standard formatting?**
- A. SSH**
  - B. HTTP**
  - C. NETCONF**
  - D. RESTCONF**
- 10. Which of the following Linux commands displays the local routing table?**
- A. netstat-i**
  - B. netstat-r**
  - C. dig**
  - D. netstat-dir**

## **Answers**

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

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## **Explanations**

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## 1. In which scenario would you use Visore?

- A. To browse Managed Objects in real-time.**
- B. To generate reports on API usage.**
- C. To set alerts for configuration changes.**
- D. To automate endpoint configurations.**

Visore is a web-based tool specifically designed for browsing Managed Objects in real-time within the context of Cisco's Application Programming Interfaces (APIs). Its primary function is to provide users with a graphical interface that displays the hierarchical structure of these Managed Objects, allowing for easy navigation and real-time data inspection. This capability is essential for network engineers and developers who need to monitor and interact with network elements and configurations dynamically. Utilizing Visore, users can gain immediate insights into the current state of managed objects, aiding in debugging and operational tasks. In contrast, the other options address different functions that are not the focus of Visore. For example, while generating reports on API usage, setting alerts for configuration changes, and automating endpoint configurations are all necessary aspects of network management and programmability, they are handled through other tools or processes within Cisco's ecosystem rather than through Visore.

## 2. What is not a Waterfall Development Process phase?

- A. Analysis**
- B. Testing**
- C. Design**
- D. Sprints**

The Waterfall Development Process is characterized by a linear and sequential approach to software development, where each phase must be completed before the next one begins. The main phases typically include Analysis, Design, Implementation, Testing, and Maintenance. In this context, Analysis refers to gathering and understanding requirements, Design focuses on how the system will fulfill those requirements, and Testing involves verifying and validating the software against the identified requirements. Sprints, however, do not fit into the Waterfall model. Instead, Sprints are a key component of the Agile methodology, which promotes iterative development and emphasizes flexibility, collaboration, and customer feedback throughout the development process. In Agile, work is divided into incremental cycles (Sprints), allowing teams to make adjustments more frequently and respond to changes. Therefore, recognizing that Sprints are associated with Agile rather than Waterfall helps clarify why it is not considered a phase within the Waterfall Development Process.

### 3. What functionality does RESTCONF provide for network management?

- A. Data retrieval in XML format
- B. Data retrieval in JSON format**
- C. Secure shell access to network devices
- D. Batch configuration operations

RESTCONF is an API that utilizes the principles of REST (Representational State Transfer) to manage network devices and configurations. One of its key functionalities is providing data retrieval in JSON format, which is a lightweight data-interchange format that is easy for humans to read and write and easy for machines to parse and generate. JSON is particularly well-suited for modern web applications and is widely used in network programmability because it simplifies data exchange between clients and servers. While RESTCONF can indeed support data retrieval in other formats such as XML, its primary focus and more common use case involve JSON due to its efficiency and simplicity. This aligns with the trend in network automation and programmability, where developers prefer JSON for its ease of integration with web technologies. Secure shell access is unrelated to RESTCONF, as that pertains to secure command-line access, which is outside the scope of what RESTCONF offers. Furthermore, while batch configuration operations may be facilitated by using APIs, the fundamental functionality of RESTCONF is centered around its RESTful capabilities and data formats like JSON, rather than batch processing operations specifically.

### 4. Which organization manages the development of the OpenFlow protocol?

- A. IEEE
- B. Open Networking Foundation (ONF)**
- C. CCITT
- D. IETF

The Open Networking Foundation (ONF) is responsible for managing the development of the OpenFlow protocol. The ONF was established to accelerate the adoption of Software-Defined Networking (SDN) and to promote standardization in this area, making it the authoritative body for OpenFlow, which plays a critical role in enabling network programmability through separation of the data plane and control plane. Under the ONF's stewardship, OpenFlow has evolved to support various use cases and has partnered with other technologies to enhance network flexibility and efficiency. This positioning allows ONF to directly influence how OpenFlow develops, incorporating feedback from the industry to meet current and future networking needs, making it the go-to organization for OpenFlow protocol developments. The other organizations listed, such as IEEE (Institute of Electrical and Electronics Engineers), CCITT (now known as ITU-T), and IETF (Internet Engineering Task Force), focus on broader networking standards and technologies but do not specifically manage OpenFlow's development. Therefore, while they play important roles in networking standards, they are not directly associated with OpenFlow.

**5. 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.

**6. Which tool validates YANG modules online?**

- A. Pyang**
- B. Ydk-gen**
- C. Ydk-py**
- D. Yang Validator**

The tool that specifically validates YANG modules online is the Yang Validator. This tool allows users to check the syntax and structure of YANG modules to ensure they conform to the YANG specifications. By providing an online platform, Yang Validator makes it easier for developers to test their YANG models without needing to install any software or configure a local environment. The validation process helps catch errors early and ensures compliance with standards, which is crucial for interoperability in network programmability. While other options, like Pyang, Ydk-gen, and Ydk-py, are valuable tools within the broader ecosystem of YANG development and usage, they do not focus exclusively on online validation. Instead, Pyang is primarily used for YANG module validation and conversion, and Ydk-gen and Ydk-py relate more to generating code and working with YANG in the context of specific APIs and frameworks, rather than providing online validation capabilities.

**7. Which command allows you to print the working directory?**

- A. ls
- B. pwd**
- C. grep
- D. print

The command that allows you to print the working directory is 'pwd', which stands for "print working directory." It is commonly used in Unix-like operating systems and shell environments to display the current directory you are in. When you execute this command, it outputs the full path of the directory you are currently located in, helping users understand where they are within the file system hierarchy during a terminal session. The other commands have distinct functions that are relevant in different contexts. For example, 'ls' is used to list the contents of a directory rather than show the current directory path. 'grep' is a powerful search utility for searching plain-text data sets for lines matching a regular expression, and 'print' does not serve as a standard command in this context. Recognizing the purpose of each command is essential for effective navigation and management of files within a command-line interface.

**8. Which tool can be used to visually browse YANG models?**

- A. Yang Validator
- B. Ydk-py
- C. Yang Explorer**
- D. Yang Sandbox

The tool that can be used to visually browse YANG models is Yang Explorer. Yang Explorer offers a user-friendly web interface that allows users to view, navigate, and interact with YANG models. This capability is particularly helpful for developers and network engineers who want to understand the structure and hierarchy of YANG models, as well as see how the various data nodes are defined. Yang Explorer facilitates the exploration of YANG model components such as containers, lists, and leaf nodes, making it easier to grasp complex model relationships and data types. This visual representation is invaluable when working with YANG-based network configuration and management, as it provides an accessible and intuitive way to analyze model schemas. Other tools like Yang Validator and Ydk-py serve different purposes, such as validating YANG models or providing a Python interface for network device interaction based on YANG models, but they do not offer the same visual browsing capabilities as Yang Explorer. Yang Sandbox is also used for testing and running YANG models but is not specifically designed for visual exploration. Therefore, Yang Explorer stands out as the ideal choice for browsing YANG models visually.



**9. What protocol provides a means to manage devices using XML and a standard formatting?**

- A. SSH**
- B. HTTP**
- C. NETCONF**
- D. RESTCONF**

The protocol that provides a means to manage devices using XML and a standard formatting is NETCONF. It is designed specifically for network configuration and management, utilizing XML to encode its messages. The key feature of NETCONF is its ability to offer a standardized way to interact with network devices, allowing for the retrieval and manipulation of device configurations. NETCONF operates over transport protocols such as SSH, which ensures secure communication during the management process. The use of XML provides a structured and interoperable method for encoding data, which is essential for various automation tasks in network management. While RESTCONF is also related to network management and uses REST principles along with JSON for formatting, the question specifically asks for a protocol that uses XML. Thus, NETCONF is the most appropriate choice given its focus and design for managing device configurations through XML-based data formats.

**10. Which of the following Linux commands displays the local routing table?**

- A. netstat-i**
- B. netstat-r**
- C. dig**
- D. netstat-dir**

The command that displays the local routing table in a Linux environment is indeed the one that corresponds with the selected choice. The `netstat -r` command provides detailed information about the routing table, including the kernel's routing entries, the destination networks, gateways, and interface information. This command is particularly useful for network diagnostics and troubleshooting, as it allows you to see how the system routes packets to different networks. The displayed information helps in understanding the default routes, connected routes, and any other routes that have been configured on the system. The other options provided do not serve this purpose. For instance, while `netstat -i` displays network interfaces and their statistics, it does not give routing table details. The `dig` command is used for DNS queries and cannot display routing information, while `netstat -dir` is not a valid command in this context. Hence, the selected answer accurately reflects the command designed for viewing the routing table in Linux.

# 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](mailto: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!**