

SACA CERTIFIED INDUSTRY 4.0 ASSOCIATE IV - IIOT, NETWORKING & DATA ANALYTICS (C-104) PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

<https://sacac104.examzify.com>



Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

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

SAMPLE

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

SAMPLE

- 1. What is the function of the MOV instruction in Studio 5000 PLC?**
 - A. To perform arithmetic calculations
 - B. To copy data between tags
 - C. To convert data types
 - D. To compare data values
- 2. What does Standard I/O (SIO) mode refer to?**
 - A. High voltage logic communications
 - B. Positive voltage logic communications
 - C. Low power logic network
 - D. Analog voltage communications
- 3. What is the term for overriding the status of a PLC?**
 - A. Force On
 - B. Input Override
 - C. Status Override
 - D. Priority Control
- 4. Which device creates either rotary or linear motion when power is applied?**
 - A. Stepper motor
 - B. Servo motor
 - C. Solenoid actuator
 - D. Pneumatic cylinder
- 5. The VFD's _____ enable(s) users to navigate parameter menus and to monitor and edit VFD settings.**
 - A. User interface
 - B. Control panel
 - C. Data logger
 - D. Feedback system
- 6. What type of logic is provided by PLC counter instructions?**
 - A. Event-based logic
 - B. Count-based logic
 - C. Condition-based logic
 - D. Signal-based logic

- 7. The trigger threshold parameter of a smart photoelectric sensor determines the amount of what needed to detect an object?**
- A. Sound
 - B. Pressure
 - C. Light
 - D. Temperature
- 8. What does OEE stand for in the context of manufacturing?**
- A. Operational Efficiency Evaluation
 - B. Overall Equipment Effectiveness
 - C. Optimized Equipment Engagement
 - D. Overall Execution Evaluation
- 9. What action does a robot take to notify the PLC that it has completed its task?**
- A. Send an input
 - B. Send an output
 - C. Activate the sensor
 - D. Stop the motor
- 10. What are edge devices in the context of Industry 4.0?**
- A. Central servers
 - B. Sensors and machines that produce data
 - C. Cloud storage systems
 - D. Analytics processing units

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. What is the function of the MOV instruction in Studio 5000 PLC?

- A. To perform arithmetic calculations
- B. To copy data between tags**
- C. To convert data types
- D. To compare data values

The MOV instruction in Studio 5000 PLC is designed to copy data between tags. This function is crucial in programming, as it allows users to transfer the value of one variable (or tag) to another with ease and efficiency. The MOV instruction takes the value from a source tag and stores it in a destination tag, making it particularly useful for managing data flow within a PLC program. Effective use of the MOV instruction enables the organization of control processes by maintaining the correct values in designated tags as different processes trigger, ensuring that the logic of the application operates as intended. In scenarios where data needs to be transferred from sensors, user inputs, or between different parts of a control system, the MOV instruction provides an essential tool for seamless data management.

2. What does Standard I/O (SIO) mode refer to?

- A. High voltage logic communications
- B. Positive voltage logic communications**
- C. Low power logic network
- D. Analog voltage communications

Standard I/O (SIO) mode refers to communication protocols that utilize positive voltage logic levels. This means that the signals are generally defined by higher voltage levels corresponding to logical high states, while lower voltage levels correspond to logical low states. This type of signal representation is commonly used in digital electronics because it ensures clear and reliable communication between devices by minimizing the impact of noise. In SIO mode, the focus is on the use of positive voltage levels for communication, which can enhance signal integrity over distances and in various environmental conditions. This approach simplifies interfacing with other digital components and aligns well with standard electronic practices, making it a popular choice for many applications. Other options, such as high voltage logic communications or low power logic networks, do not specifically encapsulate the essence of SIO mode as it is primarily characterized by its reliance on positive voltage levels. Similarly, while analog voltage communications might deal with voltage levels, they are fundamentally different in function and application as they deal with continuous signals rather than the discrete levels used in positive voltage logic systems.

3. What is the term for overriding the status of a PLC?

- A. Force On**
- B. Input Override
- C. Status Override
- D. Priority Control

The term "Force On" is used in the context of Programmable Logic Controllers (PLCs) to describe the action of manually overriding the normal status of a PLC's output. This allows operators or engineers to make a specific output active regardless of the current program logic. Using "Force On" can be particularly useful during troubleshooting or testing, as it enables the user to bypass the automated logic to verify system responses or to keep components operating under specific conditions. The functionality ensures that critical processes can continue running when needed, even if the underlying logic might prevent it due to safety or operational protocols. This contrasts with other concepts such as "Input Override," which implies manipulating input signals rather than output statuses, and "Status Override" or "Priority Control," which may suggest other forms of managing system logic or prioritizing certain tasks under defined conditions. "Force On" distinctly signifies an active intervention to maintain an output state.

4. Which device creates either rotary or linear motion when power is applied?

- A. Stepper motor
- B. Servo motor
- C. Solenoid actuator**
- D. Pneumatic cylinder

The device that creates either rotary or linear motion when power is applied is a solenoid actuator. Solenoid actuators convert electrical energy into linear motion through electromagnetic principles. When an electric current passes through the coil of the solenoid, it generates a magnetic field that moves a plunger or rod in a linear direction, thus creating motion. While stepper motors and servo motors are designed for precise control of rotary motion, their primary function is to facilitate movement in a rotational capacity. Stepper motors move in discrete steps, allowing for the control of angular position and speed, whereas servo motors provide continuous rotation with feedback for precise positioning. Pneumatic cylinders, on the other hand, utilize compressed air to generate linear motion. Although they also create linear movement, they do not operate based on electrical signals like solenoids do. This distinction emphasizes the solenoid actuator's role in producing linear motion directly from an electrical source, making it the correct answer.

5. The VFD's _____ enable(s) users to navigate parameter menus and to monitor and edit VFD settings.

- A. User interface**
- B. Control panel
- C. Data logger
- D. Feedback system

The user interface is critical in a Variable Frequency Drive (VFD) as it provides a means for users to interact with the device effectively. Through the user interface, operators can navigate parameter menus, allowing them to access various settings and configurations of the VFD. Additionally, the user interface enables monitoring of real-time performance data, as well as the ability to edit settings to optimize the VFD's operation based on specific application requirements. While the control panel may contain the user interface and provide physical controls for operation, it doesn't encompass the full functionality that users rely on to access and manage parameters. The data logger is focused on collecting and storing historical performance data rather than providing a direct means for user interaction. Finally, the feedback system primarily pertains to the VFD's ability to receive input from sensors and make adjustments accordingly, rather than providing a direct navigational experience for users. Thus, the user interface stands out as the essential component enabling comprehensive interaction with the VFD.

6. What type of logic is provided by PLC counter instructions?

- A. Event-based logic
- B. Count-based logic**
- C. Condition-based logic
- D. Signal-based logic

PLC (Programmable Logic Controller) counter instructions are specifically designed to keep track of the number of events or items that meet certain conditions. This type of logic is referred to as count-based logic because the primary function of the counter is to increment or decrement a count based on specific criteria, such as the occurrence of an input signal. In practical applications, count-based logic is crucial for counting items in a production line, monitoring the frequency of events occurring within a system, or controlling processes that depend on reaching a specific count. For instance, a counter can be configured to activate a particular output after a defined number of inputs have been received, thus facilitating automation tasks where quantifying inputs is essential. While event-based logic might seem relevant since counters monitor events, it focuses more on when an event occurs rather than the cumulative count of those events. Similarly, condition-based logic relates to whether specific conditions are met rather than counting occurrences, and signal-based logic deals with the transmission and processing of signals but does not capture the counting aspect that counters do. Therefore, count-based logic precisely encapsulates the functionality and purpose of PLC counter instructions.

7. The trigger threshold parameter of a smart photoelectric sensor determines the amount of what needed to detect an object?

- A. Sound
- B. Pressure
- C. Light**
- D. Temperature

The trigger threshold parameter of a smart photoelectric sensor fundamentally relates to the detection of objects based on light. These sensors operate on the principle of light reflection or interruption. When an object comes into the sensor's light path, it alters the amount of reflected light that the sensor detects. In the context of a photoelectric sensor, the trigger threshold specifies the minimum amount of light change necessary for the sensor to activate and indicate the presence of an object. Essentially, if the light intensity detected falls below this established threshold due to an object blocking the sensor or reflecting light differently, the sensor will trigger an action, such as sending a signal or turning on a light. While sound, pressure, and temperature can be relevant in various sensors and other types of detection systems, they are not pertinent to the operation of photoelectric sensors. These devices are specifically designed to work with light, making the detection of an object contingent upon changes in light levels.

8. What does OEE stand for in the context of manufacturing?

- A. Operational Efficiency Evaluation
- B. Overall Equipment Effectiveness**
- C. Optimized Equipment Engagement
- D. Overall Execution Evaluation

Overall Equipment Effectiveness (OEE) is a critical metric used in manufacturing to assess how effectively a manufacturing operation is utilized compared to its full potential. OEE takes into account three key factors: availability, performance, and quality. Availability measures the percentage of scheduled time that the equipment is actually running, taking into consideration downtime caused by maintenance or other delays. Performance evaluates the speed at which the equipment operates relative to its maximum potential speed, acknowledging any speed losses. Quality assesses the proportion of products manufactured that meet quality standards, thus excluding defective products from productivity calculations. By combining these three components, OEE provides a comprehensive view of production efficiency and helps organizations identify areas for improvement to enhance productivity and reduce waste. This metric is essential for continuous improvement initiatives in manufacturing environments, making it a cornerstone of Lean manufacturing and Industry 4.0 strategies.

9. What action does a robot take to notify the PLC that it has completed its task?

- A. Send an input
- B. Send an output**
- C. Activate the sensor
- D. Stop the motor

Sending an output signal from the robot to the Programmable Logic Controller (PLC) is a fundamental mechanism for communication in industrial automation systems. When a robot completes its designated task, it typically issues an output signal to inform the PLC of this completion. This output can be a digital signal that the PLC interprets as a notification or status update. In industrial environments, robots often have various outputs that can be configured to communicate specific statuses or actions. By sending an output, the robot effectively relays information about its operational state to the PLC, which can then undertake appropriate subsequent actions or processes based on this input. The other options, while related to the overall operation of a robot and PLC system, do not properly represent the method of communication regarding task completion. Sensors and motors play roles in the operation of the robot but are not direct means of reporting task completion to a PLC in the context presented.

10. What are edge devices in the context of Industry 4.0?

- A. Central servers
- B. Sensors and machines that produce data**
- C. Cloud storage systems
- D. Analytics processing units

In the context of Industry 4.0, edge devices refer to sensors and machines that produce data. These devices are integral to the Industrial Internet of Things (IIoT), functioning at the "edge" of the network where data is generated. They work by collecting real-time data from their environments, which can include temperature sensors, pressure gauges, and various types of machinery that monitor operational parameters. The primary role of edge devices is to facilitate immediate data processing and analysis close to the source of data generation. This localized processing reduces latency and bandwidth usage because it minimizes the need to send large volumes of raw data to central servers or cloud systems for analysis. By processing data at the edge, businesses can respond more quickly to operational changes, enhance efficiency, and improve decision-making. While central servers, cloud storage systems, and analytics processing units are vital components of an Industry 4.0 ecosystem, they do not fit the definition of edge devices, as they are typically involved in centralized data processing, storage, and advanced analytics rather than immediate data collection.

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://sacac104.examzify.com>

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

SAMPLE