

CDC 3E052 ELECTRICAL POWER PRODUCTION JOURNEYMAN PRACTICE EXAM (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

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

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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	15

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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. Which condition best describes a suitable contingency environment for installing a Primary Switching Center?**
 - A. Firm and well drained
 - B. Hot and arid
 - C. Cold and windy
 - D. Wet and swampy
- 2. Which connectors allow connection of an external DC power supply if the onboard batteries fail?**
 - A. External DC receptacle
 - B. USB port
 - C. AC inlet
 - D. NATO and Aircraft plugs
- 3. When referring to RMS value, what do most voltmeters measure?**
 - A. Instantaneous value.
 - B. Average value.
 - C. Effective value.
 - D. Peak value.
- 4. The BAK-14 configuration with 20 support boxes is installed on runways of widths?**
 - A. 100 feet or 150 feet
 - B. 200 feet or 300 feet
 - C. 250 feet or 350 feet
 - D. 400 feet or 450 feet
- 5. If R2 is changed to 15Ω, what happens to total resistance?**
 - A. Resistance would decrease.
 - B. Resistance would stay the same.
 - C. Current would rise.
 - D. Resistance would increase.

- 6. When the MRES is in storage which periodic inspection is performed?**
- A. Daily
 - B. Monthly
 - C. Semi-Annual
 - D. Quarterly
- 7. When the Type-H reaches 10 years in service, which maintenance action is a requirement?**
- A. Replace cables only
 - B. Complete overhaul of the system
 - C. Perform only inspections
 - D. No maintenance required
- 8. Which type of fuel lines are standard wire-braided hose with an inner lining?**
- A. Light weight lines
 - B. Heavy weight lines
 - C. Medium weight lines
 - D. Flexible copper lines
- 9. Which type of technical order update changes data in the basic technical order without replacing the existing pages?**
- A. Revision
 - B. Supplement
 - C. Amendment
 - D. Errata
- 10. What is the primary purpose of a torque wrench?**
- A. To loosen bolts
 - B. To tighten fasteners to a specified torque
 - C. To measure the torque value
 - D. To cut threads

Answers

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

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Explanations

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1. Which condition best describes a suitable contingency environment for installing a Primary Switching Center?

A. Firm and well drained

B. Hot and arid

C. Cold and windy

D. Wet and swampy

A Primary Switching Center needs a location with solid, stable footing and good drainage so the equipment stays dry and correctly aligned. A firm and well-drained site minimizes ground movement and prevents water from pooling around enclosures, which protects insulation, reduces corrosion, and lowers the risk of electrical tracking or short circuits. Dry conditions also help keep dust and contaminants down, aiding reliable operation and making maintenance safer and easier during outages or emergencies. Other environments introduce problems: extreme heat and dust can stress cooling and contaminate contacts; cold and windy conditions can bring condensation, freezing, or weather-related wear; wet and swampy areas create standing water, mud, corrosion, and unstable foundations, all of which threaten gear reliability and safety.

2. Which connectors allow connection of an external DC power supply if the onboard batteries fail?

A. External DC receptacle

B. USB port

C. AC inlet

D. NATO and Aircraft plugs

When you need to feed a system from an external DC power source, the connector must be able to carry DC reliably in rugged conditions. NATO and Aircraft plugs are built for exactly that purpose in military gear: they're rugged, lock securely, handle high current, and are designed for field use with standardized power cables. That combination of durability, proper DC ratings, and widespread availability makes them the go-to choice for external DC power when onboard batteries fail. The USB port isn't suitable because it's designed for data transfer and limited power, not for supplying the main DC power for equipment. An AC inlet is for alternating current; it assumes an AC source and isn't appropriate for a DC supply without additional conversion. An external DC receptacle could exist on some devices, but it may not provide the same ruggedness, locking mechanism, or standardized compatibility required in field conditions.

3. When referring to RMS value, what do most voltmeters measure?

A. Instantaneous value.

B. Average value.

C. Effective value.

D. Peak value.

RMS value is the effective value of an AC signal—the voltage that would produce the same average power (heating effect) in a resistor as a corresponding DC voltage. Most voltmeters are designed to display this effective, or RMS, value, not an instantaneous snapshot, not the simple average, and not the peak amplitude. For a sine wave, the RMS value equals the peak value divided by the square root of two, and true RMS meters read the actual RMS for any waveform, while older meters may approximate it only for sine waves. The instantaneous value is a momentary reading, the average value is not the same as the heating-equivalent value, and the peak value is just the maximum amplitude—RMS relates to power equivalence.

4. The BAK-14 configuration with 20 support boxes is installed on runways of widths?

- A. 100 feet or 150 feet
- B. 200 feet or 300 feet**
- C. 250 feet or 350 feet
- D. 400 feet or 450 feet

The setup is matched to runway width so the power distribution and feeder points line up properly along the runway. With 20 support boxes, this BAK-14 configuration is designed to span runways that are 200 feet wide or 300 feet wide. Those widths allow the electrical feeders, transformers, and lighting circuits to be arranged with appropriate spacing, keeping conductor runs within limits and making maintenance practical. If the runway is wider or narrower, a different number of boxes or a different configuration is required, so 200 or 300 feet is the standard pairing for this setup.

5. If R2 is changed to 15Ω, what happens to total resistance?

- A. Resistance would decrease.
- B. Resistance would stay the same.
- C. Current would rise.
- D. Resistance would increase.**

In a series circuit, the total resistance is the sum of all individual resistances. When one resistor is increased, the total also increases. Setting R2 to 15Ω raises the overall resistance, so the total resistance goes up. As a quick note, with a fixed voltage, a higher total resistance would cause the current to fall ($I = V / R_{total}$). The other options don't fit because decreasing total resistance or leaving it unchanged would require different changes to the resistors, and a rise in current would occur only if the total resistance dropped.

6. When the MRES is in storage which periodic inspection is performed?

- A. Daily
- B. Monthly
- C. Semi-Annual
- D. Quarterly**

Stored equipment needs periodic checks to stay ready for use without the overhead of constant attention. When MRES is in storage, inspecting it about every three months helps catch storage-related problems—battery discharge, lubricant or seal degradation, corrosion, or moisture issues—before deployment. This cadence strikes a balance: it's frequent enough to spot developing problems, but not so frequent as to waste effort on an idle unit. Daily or monthly checks are unnecessary for equipment not in service, and waiting six months can allow issues to go unnoticed. So, a quarterly inspection interval is the most appropriate for stored MRES.

7. When the Type-H reaches 10 years in service, which maintenance action is a requirement?

- A. Replace cables only
- B. Complete overhaul of the system**
- C. Perform only inspections
- D. No maintenance required

When equipment has aged to a long service life, a major maintenance action is needed to restore performance and ensure safety. Reaching ten years typically triggers a complete overhaul because aging components, insulation, mechanical parts, and control systems can degrade in ways that aren't visible from a surface check. An overhaul addresses all critical areas—disassembly, inspection and testing of windings and insulation, mechanical wear, lubrication, alignment, and the integrity of control and protective circuits—so the system returns to design specifications and reliability. Relying only on inspections misses hidden wear or degradation that can lead to unexpected failures. Replacing cables alone fixes just one part of the system while other components may also be worn or degraded. Doing no maintenance at all is unsafe and contrary to established maintenance practices. A complete overhaul at the ten-year mark is the most thorough way to maintain performance and safety.

8. Which type of fuel lines are standard wire-braided hose with an inner lining?

- A. Light weight lines
- B. Heavy weight lines
- C. Medium weight lines**
- D. Flexible copper lines

Fuel lines are categorized by how much reinforcement they use, which affects both the pressure they can tolerate and how flexible they remain. A standard wire-braided hose with an inner lining is built to handle typical fuel system pressures while staying flexible enough to route through complex paths. That combination—braided reinforcement for pressure resistance plus an inner lining for fuel compatibility—fits the middle of the range, so this type is considered medium weight. Light weight lines usually lack the braid reinforcement and are used for lower-pressure, short runs; they're not designed for the same pressure or vibration resistance. Heavy weight lines have thicker reinforcement and are built for higher pressures, but they're stiffer and less flexible, often more than what's needed for standard fuel routing. Flexible copper lines are not the same as hose with a braided exterior; they're rigid tubing, not the same construction or flexibility as wire-braided hoses.

9. Which type of technical order update changes data in the basic technical order without replacing the existing pages?

- A. Revision
- B. Supplement**
- C. Amendment
- D. Errata

A supplement is the type used when you need to add or update data in the basic technical order without replacing the existing pages. It acts as an addendum that brings in new or revised information while the original pages stay in place, so the document remains intact but with updated content. This approach is preferred when changes are needed but don't require a complete rewrite of the TO. In contrast, a revision replaces pages to deliver a new edition, an amendment typically patches specific content that often involves page replacements, and errata covers small corrections to the published material rather than broad data updates within the TO itself.

10. What is the primary purpose of a torque wrench?

- A. To loosen bolts
- B. To tighten fasteners to a specified torque**
- C. To measure the torque value
- D. To cut threads

A torque wrench is used to tighten fasteners to a specified torque so the clamping force on the joint is controlled. Setting the tool to the exact torque value and applying force until the wrench indicates the target is reached ensures the bolt or nut is loaded precisely as intended. This prevents problems from under-torque, such as a loose connection that can vibrate free, and from over-torque, which can stretch or shear threads, crush gaskets, or damage parts. The tool provides a clear cue (click, deflection, or readout) when the preset torque is achieved, making it reliable to achieve consistent, correct preload. It isn't primarily a device for loosening bolts, measuring torque in isolation, or cutting threads.

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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://cdc3e052.examzify.com>

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

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