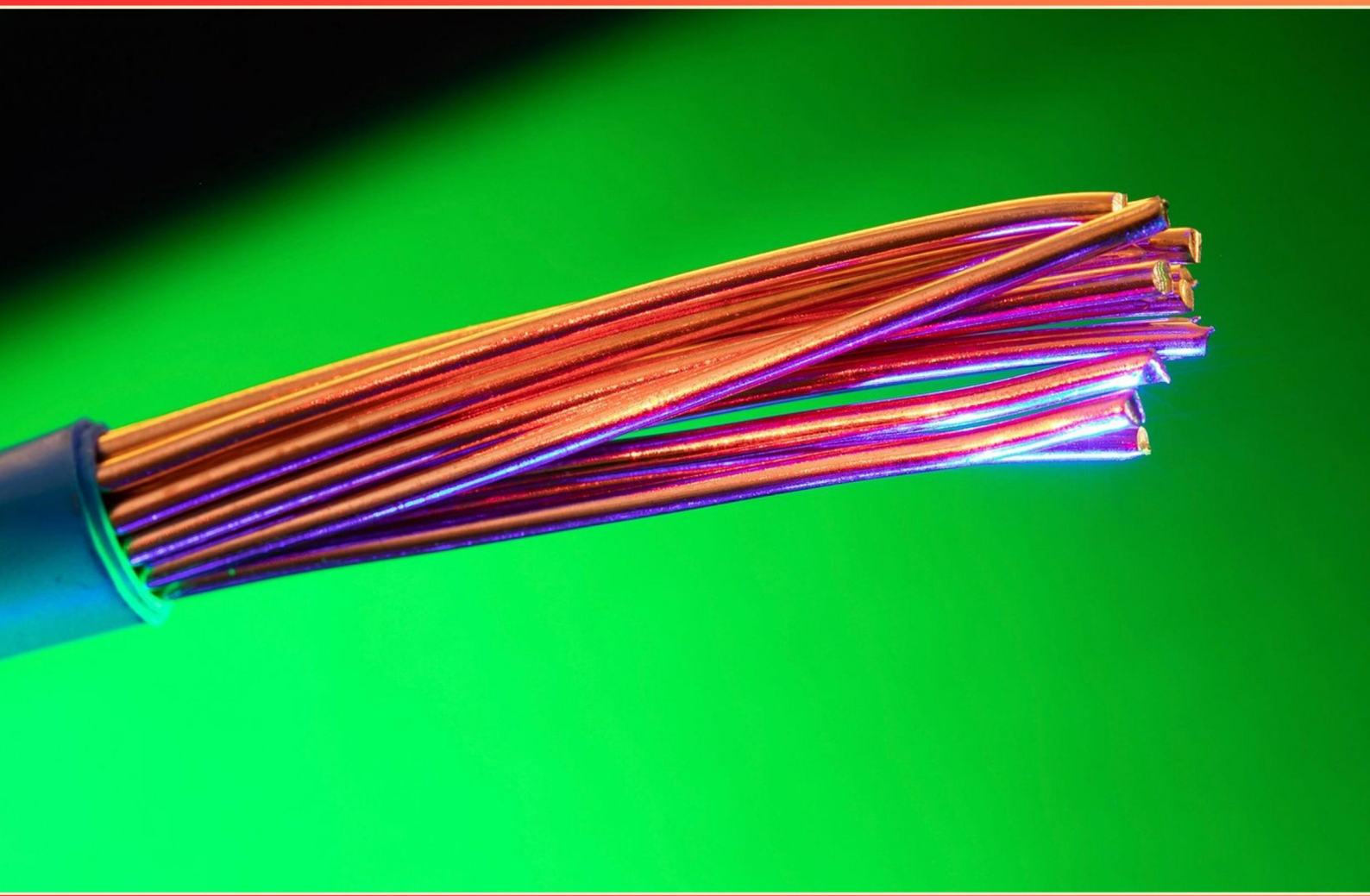
MINNESOTA ELECTRICAL JOURNEYMAN PRACTICE EXAM (SAMPLE)

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. PVC Expansion is specified in which table?

A. Table 310.16

B. Table 312.9(A)

C. Table 352.44

D. Table 430.52(C)(1)

2. What is the NEC-required minimum working clearance in front of electrical equipment?

A. 1 foot

B. At least 3 feet (0.9 meters)

C. 5 feet

D. 6 feet

3. Which article covers Load Calculations?

A. Article 230

B. Article 120

C. Article 240

D. Article 250

4. Which article covers Conductor Ampacities?

A. Article 120

B. Article 230

C. Article 240

D. Article 310

5. If P = 1,200 W and I = 6 A, what is V?

A. 200 V

B. 120 V

C. 240 V

D. 600 V

6. Table 120.4 provides references for specific-purpose calculations.

A. GFCI protection requirements

B. Specific-Purpose Calculation References

C. General Lighting Load

D. OCP for branch circuits

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7. Transformers and disconnecting means are covered by which NEC article?

A. Article 430

B. Article 210

C. Article 450

D. Article 300

8. Metal Box Sizing is specified in which table?

A. Table 312.9(A)

B. Table 314.16(A)

C. Table 430.52(C)(1)

D. Table 352.44

9. Which NEC article governs box fills and how is box volume determined?

A. Article 314; box volume is determined by the number and size of conductors, grounds, clamps, and devices

B. Article 310; box volume is based on insulation

C. Article 210; box volume is based on circuit loads

D. Article 404; box volume is based on switch type

10. Which NEC reference defines Minimum Size Equipment Grounding Conductor for Grounding Raceway and Equipment (EGC)?

A. Table 210.62

B. Table 250.122

C. Table 250.102(C)(1)

D. Table 310.15(C)(1)

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Answers

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

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Explanations

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1. PVC Expansion is specified in which table?

A. Table 310.16

B. Table 312.9(A)

C. Table 352.44

D. Table 430.52(C)(1)

PVC expansion relates to how motor circuits are sized and routed when using PVC conduit, since expansion allowances affect conductor placement and termination in that context. The NEC provides the specific expansion-related guidance for motor circuits in Table 430.52(C)(1). This is the right reference because it is the table that handles motor circuit conductors and includes the installation considerations tied to PVC conduit expansion. The other tables address different topics—ampacity, box fill, or PVC conduit data in other respects—and do not give the PVC expansion parameters needed for motor circuit installations. So the table that specifies PVC expansion in this context is Table 430.52(C)(1).

2. What is the NEC-required minimum working clearance in front of electrical equipment?

A. 1 foot

B. At least 3 feet (0.9 meters)

C. 5 feet

D. 6 feet

The main idea is that electrical work requires a safe, unobstructed space to reach controls and perform maintenance without crowding the live parts. The NEC sets this minimum working clearance in front of electrical equipment at three feet (0.9 meters). This provides enough room to position tools, move around the panel, and avoid accidental contact with energized parts while operating or testing. One foot is not adequate for safe access, while six feet goes beyond the minimum but isn't the required standard. In many cases, extra space may be needed depending on voltage or specific equipment, but three feet is the basic minimum you must have.

3. Which article covers Load Calculations?

A. Article 230

B. Article 120

C. Article 240

D. Article 250

Calculating loads is about sizing the electrical system to safely carry all the connected loads, including lighting, receptacles, appliances, and fixed equipment, by adding them up and applying demand factors to determine required ampacity for feeders, service conductors, and the service disconnect. In the NEC structure, the step-by-step calculation rules live in Article 220, which explains how to determine the load for feeders and services. The results from those calculations then inform the sizing of service equipment described in Article 230, which covers service conductors, service equipment, and the main disconnects. The other articles listed play different roles: Article 240 deals with overcurrent protection, and Article 250 covers grounding and bonding, while Article 120 is more about administrative provisions and permits. So the concept you're being tested on is how load calculations drive proper sizing, with Article 220 providing the calculation method and Article 230 connecting those results to the service equipment.

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4. Which article covers Conductor Ampacities?

A. Article 120

B. Article 230

C. Article 240

D. Article 310

Conductor ampacity is the maximum current a conductor can carry continuously without overheating its insulation. The NEC lays out the rules and the actual ampacity tables in the article that covers conductors for general wiring, which is where you look up how conductor size, insulation temperature rating, ambient conditions, and installation setup determine the allowable current. The other articles address different topics—services, overcurrent protection, and related requirements—so they don't provide the conductor ampacity values.

5. If P = 1,200 W and I = 6 A, what is V?

A. 200 V

B. 120 V

C. 240 V

D. 600 V

Power in a circuit comes from multiplying voltage and current, P = V × I. To find voltage when you know power and current, use V = P / I. Here, V = 1200 W ÷ 6 A = 200 V. This also checks out by the reverse calculation: 6 A × 200 V = 1200 W. If you plugged in the other voltages, you'd get different powers (120 V would give 720 W, 240 V would give 1440 W, 600 V would give 3600 W), which don't match the given power.

6. Table 120.4 provides references for specific-purpose calculations.

A. GFCI protection requirements

B. Specific-Purpose Calculation References

C. General Lighting Load

D. OCP for branch circuits

Table 120.4 is a directory of how to perform calculations for specific situations. It points you to the exact reference or method you should use when sizing equipment or conducting load calculations for particular scenarios, rather than providing the calculation itself or addressing protections or general loads. That's why it's about specific-purpose calculation references. The other topics—GFCI requirements, general lighting load, or overcurrent protection for branch circuits—are handled in different parts of the code and have their own tables and rules, not the function of this table.

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7. Transformers and disconnecting means are covered by which NEC article?

A. Article 430

B. Article 210

C. Article 450

D. Article 300

Transformers and the devices used to disconnect them are addressed specifically in Article 450. This article covers transformer installation requirements, protection, cooling, and, importantly, the disconnecting means that must be provided so the transformer can be safely de-energized for servicing. The other articles cover different equipment: motors and motor control circuits (not transformers), general branch circuits, and general wiring methods, so they don't apply to transformer-specific rules.

8. Metal Box Sizing is specified in which table?

A. Table 312.9(A)

B. Table 314.16(A)

C. Table 430.52(C)(1)

D. Table 352.44

Understanding metal box sizing is about making sure the box has enough internal space for all conductors, devices, and fittings so wires don't crowd or overheat. To size a metal box, you first count how many conductors originate outside the box and terminate inside or pass through, combine all equipment grounds into a single count, add any internal clamps as needed, and include a count for any device yokes. The NEC provides a table specifically for metal box sizing that lists the minimum cubic inches required for a given combination of conductors and devices. You then pick a metal box whose listed cubic inch capacity meets or exceeds that requirement. In this item, the reference is Table 352.44, which is the table used to determine metal box sizing. Other tables cover different topics or box types, so they don't directly apply to sizing metal boxes in the same way.

9. Which NEC article governs box fills and how is box volume determined?

A. Article 314; box volume is determined by the number and size of conductors, grounds, clamps, and devices

B. Article 310; box volume is based on insulation

C. Article 210; box volume is based on circuit loads

D. Article 404; box volume is based on switch type

Box fills are determined by NEC Article 314. The space inside a box must be enough for the conductors and other items that occupy it, so you calculate the volume by counting how much each component needs. Each conductor that originates outside the box and is spliced or terminated inside counts toward the fill, all grounding conductors in the box count as one conductor toward fill, internal clamps count as one, and devices on a box (the yoke or strap) add to the fill as well. Then you multiply the total conductor count by the cubic inches per conductor based on the conductor size (for example, 14 AWG, 12 AWG, etc.), using the tables in Article 314. This total must not exceed the box's published cubic inch capacity. The other articles mentioned govern different topics—insulation/ampacity (Article 310), general branch-circuit loads (Article 210), and switch-related rules (Article 404)—not box fills.

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10. Which NEC reference defines Minimum Size Equipment Grounding Conductor for Grounding Raceway and Equipment (EGC)?

A. Table 210.62

B. Table 250.122

C. Table 250.102(C)(1)

D. Table 310.15(C)(1)

The size of the equipment grounding conductor (EGC) is set by the overcurrent protection rating for the circuit. NEC Article 250 provides a table that ties each OCPD rating to a minimum EGC size, ensuring there's a reliable path for fault current to trip the protective device. That table is Table 250.122. So for any branch circuit or feeder, you look up the OCPD rating in Table 250.122 and use at least the listed conductor size (copper or aluminum) as the EGC. This arrangement helps the fault current travel back quickly enough to trip the breaker without overheating the grounding conductor. The other tables cited are used for different purposes—such as ampacity adjustments or other grounding/bonding rules—so they don't define the minimum EGC size for grounding raceways and equipment. For example, a typical 20-amp circuit would require a copper EGC of at least 12 AWG according to Table 250.122.

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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://mnelectricaljourneyman.examzify.com

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

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