

AG Mechanics CDE Practice Exam (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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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 the MIG welding process, gas pressure should be set at approximately**
 - A. 10-15 psi**
 - B. 15-20 psi**
 - C. 25-30 psi**
 - D. 5-10 psi**
- 2. Joining parts by melting them together is known as**
 - A. brazing**
 - B. fusion welding**
 - C. soldering**
 - D. spot welding**
- 3. SAE stands for:**
 - A. Society of American Engineers**
 - B. Society of Automotive Engineers**
 - C. Standard Automotive Engineering**
 - D. Standard Automotive Evaluation**
- 4. TIG welding primarily uses which material as its electrode?**
 - A. Aluminum**
 - B. Steel**
 - C. Tungsten**
 - D. Wire**
- 5. Removing gas from oxyacetylene equipment is known as**
 - A. Bleeding the lines**
 - B. Flushing the system**
 - C. Purging the tank**
 - D. Venting the hoses**
- 6. How many holes are there in the end of tips used in oxyacetylene welding?**
 - A. One**
 - B. Three**
 - C. Two**
 - D. Four**

- 7. What are used to attach roof plates or sills to masonry work?**
- A. Anchor bolts**
 - B. Nails**
 - C. Screws**
 - D. Staples**
- 8. The "60" in E6013 represents what according to the Numerical Coding for Electrodes?**
- A. 60% duty cycle**
 - B. 60 seconds**
 - C. Tensile Strength in thousands of pounds per square inch**
 - D. Thickness of the electrode**
- 9. Flux coated metal welding rods are referred to as:**
- A. arc**
 - B. electrodes**
 - C. slag**
 - D. puddle**
- 10. In stick welding, what characteristic indicates that the electrode is being held too close to the workpiece?**
- A. Arc noise increasing**
 - B. Arc wanting to extinguish**
 - C. Bead becoming uneven**
 - D. Slag forming too quickly**

Answers

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

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Explanations

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1. In the MIG welding process, gas pressure should be set at approximately

- A. 10-15 psi**
- B. 15-20 psi**
- C. 25-30 psi**
- D. 5-10 psi**

In the MIG welding process, gas pressure is typically set at approximately 10-15 psi. This pressure range is recommended to ensure proper shielding gas flow to protect the welding area from atmospheric contamination. Options B, C, and D are not the ideal choices because they have pressure ranges that are either too high or too low, which can result in poor weld quality or inadequate shielding gas coverage during the welding process.

2. Joining parts by melting them together is known as

- A. brazing**
- B. fusion welding**
- C. soldering**
- D. spot welding**

The correct answer is fusion welding, which specifically refers to the process of melting two or more parts together to create a solid joint as they cool and solidify. This process can involve high temperatures and may require the addition of a filler material, but the key concept is that the base materials are melted together at their boundaries. Brazing and soldering also involve joining materials, but they do not typically require the base metals to be melted; instead, they involve the use of a filler material that melts at a lower temperature than that of the base materials, which remain solid during the process. Spot welding, on the other hand, is a method used primarily in sheet metal applications, where two metal surfaces are joined at discrete points using heat from electrical resistance. By understanding the definition of fusion welding, it becomes clear that this process is distinguished from other joining methods due to its use of heat to actually melt and fuse the materials together, leading to a strong and permanent bond upon cooling.

3. SAE stands for:

- A. Society of American Engineers**
- B. Society of Automotive Engineers**
- C. Standard Automotive Engineering**
- D. Standard Automotive Evaluation**

SAE stands for "Society of Automotive Engineers." This organization is a global association of engineers, technical experts, and students in the aerospace, automotive, and commercial-vehicle industries. The Society of Automotive Engineers develops technical standards for automotive and aerospace engineering. The other options are not correct because they do not accurately represent what SAE stands for in the context of this industry.

4. TIG welding primarily uses which material as its electrode?

A. Aluminum

B. Steel

C. Tungsten

D. Wire

Tungsten is primarily used as the electrode material in TIG (Tungsten Inert Gas) welding. Tungsten has a high melting point, which allows it to maintain its structural integrity at the high temperatures generated during the welding process. This property makes it an ideal choice for use as the electrode in TIG welding. Aluminum, steel, and wire are not typically used as electrode materials in TIG welding.

5. Removing gas from oxyacetylene equipment is known as

A. Bleeding the lines

B. Flushing the system

C. Purging the tank

D. Venting the hoses

Removing gas from oxyacetylene equipment is known as "bleeding the lines" because this process involves opening the valves and allowing the gas to escape until the lines are free of any remaining gas, ensuring the safety of the equipment and the operator. Flushing the system typically refers to cleaning out the system with a solvent or cleaner. Purging the tank is a process of removing any remaining gases or impurities from a tank or container. Venting the hoses can refer to releasing pressure from hoses but may not fully remove all the gas from the equipment.

6. How many holes are there in the end of tips used in oxyacetylene welding?

A. One

B. Three

C. Two

D. Four

One is the correct answer because the number of holes in the tip depends on its size and type and is determined by the manufacturer. The tips used in oxyacetylene welding can have one, two, three, or even four holes, but typically have only one for precision and control. Options B, C, and D are incorrect as they assume a specific number of holes, whereas the number can vary.

7. What are used to attach roof plates or sills to masonry work?

A. Anchor bolts

B. Nails

C. Screws

D. Staples

Anchor bolts are used to attach roof plates or sills to masonry work because they provide a secure and strong connection. Anchor bolts are designed to provide structural support and are specifically made for this purpose. Nails, screws, and staples are not suitable for attaching roof plates or sills to masonry work as they may not provide the same level of strength and security as anchor bolts.

8. The "60" in E6013 represents what according to the Numerical Coding for Electrodes?

A. 60% duty cycle

B. 60 seconds

C. Tensile Strength in thousands of pounds per square inch

D. Thickness of the electrode

The correct answer is A. In the Numerical Coding for Electrodes, such as the E6013, the first two digits (60 in this case) represent the tensile strength of the electrode in thousands of pounds per square inch. The tensile strength is an important factor to consider when selecting an electrode for a welding job, as it indicates the maximum load the electrode can withstand before breaking. The other options are not relevant when it comes to the numerical coding for electrodes.

9. Flux coated metal welding rods are referred to as:

A. arc

B. electrodes

C. slag

D. puddle

Flux coated metal welding rods are referred to as "electrodes" because they serve as a conductor that carries the welding current to the arc. The flux coating on the welding rod helps to create a protective gas shield around the weld pool, preventing contamination and oxidation of the molten metal. This feature of electrodes makes them an essential component in many welding processes. The other options, such as "arc," "slag," and "puddle," are not the correct terms to describe flux coated metal welding rods.

10. In stick welding, what characteristic indicates that the electrode is being held too close to the workpiece?

A. Arc noise increasing

B. Arc wanting to extinguish

C. Bead becoming uneven

D. Slag forming too quickly

When stick welding, holding the electrode too close to the workpiece can result in the electrode sticking to the metal or the workpiece surface. This creates a short circuit, causing the arc noise to increase significantly. The increased arc noise is an indication that the electrode is too close to the workpiece, resulting in an improper welding technique. This excessive arc noise can lead to splattering and poor weld quality. Therefore, the correct answer is A. Options B, C, and D are not characteristics of holding the electrode too close to the workpiece. Option B, where the arc wants to extinguish, typically happens when the electrode is too far from the workpiece or when there is improper amperage setting. Option C, where the bead becomes uneven, is often a result of inconsistent travel speed or incorrect angle of the electrode. Option D, where slag forms too quickly, might occur due to high amperage settings or improper welding technique, rather than holding the electrode too close to the workpiece.

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://agcde.examzify.com>

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