

AG MECHANICS CDE PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

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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 welding process typically requires the most skill?**
- A. FCAW
 - B. GMAW
 - C. GTAW
 - D. SMAW
- 2. One mile is equivalent to how many feet?**
- A. 5,280
 - B. 4,000
 - C. 6,000
 - D. 3,000
- 3. When stick welding, if the arc is too long, what characteristic is likely to be observed?**
- A. Dark bead
 - B. Porous weld
 - C. Splattered bead
 - D. Weakened arc
- 4. API stands for:**
- A. American Petroleum Industry
 - B. American Petroleum Institute
 - C. Automotive Parts Institute
 - D. Automotive Performance Index
- 5. Which of the following items is needed in the welding area in case of emergency?**
- A. Fire blanket
 - B. First aid kit
 - C. Protective goggles
 - D. Ventilation fan

6. The most common size of a mortar joint is:
- A. 1/4"
 - B. 1/2"
 - C. 3/8"
 - D. 5/8"
7. Why is brazing commonly used in welding processes?
- A. It allows for stronger welds.
 - B. It requires less heat.
 - C. It generates less smoke.
 - D. It uses cheaper materials.
8. On the _____ stroke of an engine, the piston is going down, one valve is open and the other valve is closed and air and fuel are being drawn into the cylinder.
- A. compression
 - B. exhaust
 - C. intake
 - D. power
9. Safety glasses or goggles worn when using the oxyacetylene torch should be what number shaded lens?
- A. No. 3
 - B. No. 5
 - C. No. 10
 - D. No. 8
10. How many nails are recommended to be put in a standard asphalt shingle in low wind areas?
- A. 2
 - B. 3
 - C. 4
 - D. 5

Answers

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

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Explanations

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1. Which welding process typically requires the most skill?

- A. FCAW**
- B. GMAW
- C. GTAW
- D. SMAW

The welding process that typically requires the most skill is Flux-Cored Arc Welding (FCAW). FCAW is considered more challenging compared to other welding processes because it requires a high level of precision and control due to the nature of the flux-cored wire used. This process demands the welder to have a keen understanding of welding techniques, heat control, and proper manipulation to create strong, quality welds. Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW), and Shielded Metal Arc Welding (SMAW) are also common welding processes, but FCAW is known for being more complex and requiring a higher level of skill from the operator.

2. One mile is equivalent to how many feet?

- A. 5,280**
- B. 4,000
- C. 6,000
- D. 3,000

One mile is equivalent to 5,280 feet. This is the correct answer because there are 5,280 feet in a mile according to the standard unit of measure for length in the Imperial system. The other options are incorrect because they do not correspond to the actual conversion factor for miles to feet.

3. When stick welding, if the arc is too long, what characteristic is likely to be observed?

- A. Dark bead**
- B. Porous weld
- C. Splattered bead
- D. Weakened arc

When stick welding, if the arc is too long, a characteristic that is likely to be observed is a dark bead. A dark bead indicates that the welding arc was not properly shielding the weld pool, leading to incomplete penetration and an unsatisfactory weld. The other options are incorrect because: - Porous weld would typically result from issues such as contamination or improper gas coverage, not specifically from having an arc that is too long. - Splattered bead would indicate that the welding parameters are not set correctly, but specifically not related to the length of the arc. - Weakened arc is not a common characteristic attributed to having an arc that is too long; it may indicate issues with the power supply or other factors.

4. API stands for:

- A. American Petroleum Industry
- B. American Petroleum Institute**
- C. Automotive Parts Institute
- D. Automotive Performance Index

The correct answer is B. American Petroleum Institute. The American Petroleum Institute (API) is a trade association that represents the oil and natural gas industry in the United States. They develop standards for equipment and operations in the industry to ensure safety, efficiency, and environmental protection. Option A, American Petroleum Industry, is incorrect as the correct acronym is American Petroleum Institute. Options C and D, Automotive Parts Institute and Automotive Performance Index, are unrelated to the acronym API in the context of the oil and natural gas industry.

5. Which of the following items is needed in the welding area in case of emergency?

- A. Fire blanket**
- B. First aid kit
- C. Protective goggles
- D. Ventilation fan

In a welding area, a fire blanket is an essential safety item to have in case of an emergency. If a fire breaks out during the welding process, a fire blanket can be used to smother the flames, helping to prevent the fire from spreading and allowing individuals to safely escape the area. Protective goggles are important for eye protection during welding, but they are not specifically for emergencies. A first aid kit is important for treating minor injuries that may occur, but it is not as crucial in immediate emergency situations as a fire blanket. A ventilation fan is important for maintaining good air quality by removing welding fumes, but it is not typically used as an emergency response item.

6. The most common size of a mortar joint is:

- A. 1/4"
- B. 1/2"
- C. 3/8"**
- D. 5/8"

A 1/4" is typically too thin for a mortar joint and may not provide enough support for the bricks or stones. B: 1/2" may be too thick for a mortar joint, resulting in excess mortar that may be unsightly. D: 5/8" is considered large and may not adhere well to the bricks or stones, leading to potential cracking and settling. Therefore, the most common and recommended size for a mortar joint is 3/8", providing a good balance of strength and aesthetics.

7. Why is brazing commonly used in welding processes?

- A. It allows for stronger welds.
- B. It requires less heat.**
- C. It generates less smoke.
- D. It uses cheaper materials.

Brazing is commonly used in welding processes because it requires less heat compared to other welding techniques. Brazing joins materials by melting a filler metal that is then drawn into the joint through capillary action. The lower heat requirement of brazing prevents the base metals from reaching their melting point, which can help to minimize distortion and warping of the materials being joined. Additionally, the lower heat input can reduce the likelihood of damaging the base metals or creating undesirable metallurgical changes.

8. On the _____ stroke of an engine, the piston is going down, one valve is open and the other valve is closed and air and fuel are being drawn into the cylinder.

- A. compression**
- B. exhaust
- C. intake
- D. power

During the compression stroke of an engine, the piston moves upward, compressing the air-fuel mixture in the cylinder. This is where both valves are closed, allowing the mixture to be compressed before ignition. The intake stroke is when the piston moves downward, drawing in the air-fuel mixture through the open intake valve. The exhaust stroke occurs when the piston moves upward again, pushing the exhaust gases out through the open exhaust valve. The power stroke is when the compressed air-fuel mixture ignites, driving the piston down with force. Therefore, the correct answer is the compression stroke because it is the only option that matches the description given in the question.

9. Safety glasses or goggles worn when using the oxyacetylene torch should be what number shaded lens?

- A. No. 3**
- B. No. 5
- C. No. 10
- D. No. 8

When using an oxyacetylene torch, safety glasses or goggles should have a No. 3 shaded lens. This shading is necessary to protect the eyes from the intense, bright light produced by the flame. A No. 3 lens provides adequate protection without being too dark, ensuring that the user can see clearly while still preventing potential eye damage. Options B, C, and D do not provide the appropriate level of shading required for safety when using an oxyacetylene torch.

10. How many nails are recommended to be put in a standard asphalt shingle in low wind areas?

- A. 2**
- B. 3
- C. 4
- D. 5

In low wind areas, it is recommended to use two nails when installing a standard asphalt shingle. This is because in areas with lower wind speeds, two nails are typically sufficient to secure the shingle in place. Using fewer nails in low wind areas can help reduce material and installation costs without sacrificing the structural integrity of the installation. Option B, C, and D are not the correct choices because they suggest using more nails than necessary for areas with low wind exposure, which could be considered excessive and unnecessary for the specific conditions of low wind areas.

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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://agcde.examzify.com>

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

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