

GMA WELDING FOR COLLISION REPAIR WELDING PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE

<https://gmaweldingforcollisionrepair.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	15

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. Which welding technique involves placing a series of small, spaced welds to spread heat?**
 - A. Stitch
 - B. Skip weld
 - C. Alternating plug welds
 - D. Continuous weld
- 2. Where should the work clamp be attached in relation to the weld site?**
 - A. Far from the weld site
 - B. On the opposite side of the weld site
 - C. Close to the weld site
 - D. On the bottom piece only
- 3. For collision repairs, which polarity is used most often?**
 - A. Reverse
 - B. Straight
 - C. Pulsed
 - D. Neutral
- 4. When tuning a welding machine for a vehicle repair, which metal should be used for testing?**
 - A. Aluminum
 - B. The same metal as the vehicle
 - C. Copper
 - D. Stainless steel
- 5. Which of the following is a valid visual criterion to inspect in a MIG weld on a vehicle panel?**
 - A. Weld throat thickness
 - B. Brand of filler wire
 - C. Color of primer
 - D. Vehicle model

- 6. Which defect in a MIG weld indicates potential failure and should be avoided?**
- A. Porosity in the weld
 - B. Uniform bead height
 - C. No cracks
 - D. Perfect throat thickness
- 7. What factor related to welding gun movement directly affects heat input?**
- A. Shielding gas
 - B. Travel speed
 - C. Electrode diameter
 - D. Electrode color
- 8. In the wire designation ER70S-6, what does the number 70 signify?**
- A. The wire size code
 - B. The gas type used
 - C. The tensile strength expressed in psi (70 represents 70,000 psi)
 - D. The current setting
- 9. What is the typical preheat temperature range in Fahrenheit for steel patches in collision repair MIG welding?**
- A. 0-32°F.
 - B. None; preheating is not used.
 - C. 300-500°F (150-250°C).
 - D. 1000-1200°F.
- 10. What is a recommended method to prepare aluminum for MIG welding to remove oxide quickly and effectively?**
- A. Use a steel brush and acetone wash
 - B. Use a dedicated aluminum brush, wipe with acetone or IPA, and if heavy oxide, lightly etch with an aluminum oxide cleaner
 - C. Sand with steel wool only
 - D. Ignore oxide and weld anyway

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Which welding technique involves placing a series of small, spaced welds to spread heat?

- A. Stitch
- B. Skip weld**
- C. Alternating plug welds
- D. Continuous weld

The concept here is controlling heat input by breaking a long weld into short bursts. By placing a series of small welds with gaps along the joint, you apply heat in bursts and allow each area to cool a bit before the next weld. This spreads the heat over a larger area and lowers the peak temperature in the base metal, which helps minimize distortion, warping, and burn-through—especially important on thin automotive sheet metal. Continuous welds concentrate heat along the entire seam, increasing the risk of distortion. The term used for intentionally spaced welds to spread heat is skip weld, which matches this description. While stitch welds also involve small, spaced welds, the wording here aligns with the skip-weld idea of distributing heat with deliberate gaps. Plug welds, alternating or otherwise, refer to a different joint detail and aren't about spreading heat along a seam in the same way.

2. Where should the work clamp be attached in relation to the weld site?

- A. Far from the weld site
- B. On the opposite side of the weld site
- C. Close to the weld site**
- D. On the bottom piece only

Attach the work clamp close to where you're welding. The electrical ground path should be as short and direct as possible, so the return current travels a minimal distance through the workpiece and clamp lead. Why this matters: a near weld-site ground minimizes resistance and voltage drop in the return path, which helps keep the arc stable and the heat focused at the weld. It also reduces the chance that current will wander through unintended areas, which can cause weak welds, overheating, or distortion in surrounding metal. Clamping far away, on the opposite side, or on the bottom piece only introduces a longer path for the current and can make grounding less effective, leading to poorer weld quality. In collision repair, the safest and most effective practice is to attach the ground as close to the weld area on the same piece being welded.

3. For collision repairs, which polarity is used most often?

- A. Reverse**
- B. Straight
- C. Pulsed
- D. Neutral

In MIG welding for collision repairs on steel, the common choice is reverse polarity (electrode positive). This setup drives more heat into the weld zone and base metal, which promotes better fusion and deeper penetration for joints and patch replacements. That reliable heat transfer helps ensure strong, consistent welds on automotive panels using the typical solid wire and shielding gas combinations. Straight polarity (electrode negative) is used less often for steel MIG because it produces less heat in the weld zone, which can mean shallower penetration and weaker fusion for typical repair joints. Pulsed describes a current waveform, not a polarity, and neutral isn't a standard MIG polarity, so those options don't reflect the usual practice.

4. When tuning a welding machine for a vehicle repair, which metal should be used for testing?

- A. Aluminum
- B. The same metal as the vehicle**
- C. Copper
- D. Stainless steel

Tuning a welder for vehicle repair must be done on the same metal you'll actually weld. The metal's properties—melting point, electrical resistivity, and how heat and oxide form—directly affect how the arc behaves, how the metal fuses, and how the bead looks and holds. By testing on the same metal as the vehicle, you set the heat input and arc conditions to match real-panel welding, giving you reliable penetration, fusion, and bead quality when you work on the car. If you tune on a different metal, you'll bias the settings to that material's behavior and risk over- or under-heating, poor fusion, burn-through, or warping once you weld the actual panel. In collision repair, most panels are steel, but aluminum and stainless parts appear too, so when those materials are involved, use test pieces of the same metal and thickness to mirror the real welding conditions.

5. Which of the following is a valid visual criterion to inspect in a MIG weld on a vehicle panel?

- A. Weld throat thickness**
- B. Brand of filler wire
- C. Color of primer
- D. Vehicle model

Visual checks for a MIG weld focus on the size and consistency of the weld as it appears on the panel. The throat thickness is the crucial measure—the shortest distance from the weld root to the face of the weld along the cross-section. It directly reflects how much weld metal has filled between the panels and, when compared to the specified weld size, indicates whether the joint has enough fusion and strength. The other items don't provide a reliable visual indicator of weld quality: the brand of filler wire doesn't tell you about the actual weld appearance or penetration, the color of primer is just a coating and can conceal issues, and the vehicle model has no bearing on how well the weld was made.

6. Which defect in a MIG weld indicates potential failure and should be avoided?

- A. Porosity in the weld**
- B. Uniform bead height
- C. No cracks
- D. Perfect throat thickness

Porosity in a MIG weld is a defect where tiny gas pockets get trapped in the solidifying weld metal. Those pores weaken the weld because they reduce the effective cross section and create stress concentrators, which can lead to premature failure under load or vibration. Porosity also undermines fatigue strength and corrosion resistance, and it often signals problems with shielding or cleanliness. Common causes include moisture on the base metal or filler wire, oil, grease, rust, or other contamination, and inadequate shielding gas coverage due to incorrect flow, leaks, long distance, or wind. To prevent it, clean and dry all surfaces, use dry filler wire, ensure good shielding gas coverage with the correct flow, keep a proper arc length, and adjust welding parameters so gas can escape as the weld cools. Other characteristics described—uniform bead height, no cracks, and perfect throat thickness—point to a sound weld with good fusion and strength, not a defect.

7. What factor related to welding gun movement directly affects heat input?

- A. Shielding gas
- B. Travel speed**
- C. Electrode diameter
- D. Electrode color

Heat input is governed by how long the arc energy stays in a given spot, which is directly controlled by how fast you move the welding gun along the joint. When you travel slowly, the arc spends more time on a small area, delivering more energy per inch and producing higher heat input (deeper penetration and a hotter weld). Move the gun faster and the arc spends less time in one location, reducing heat input and typically yielding a cooler weld with shallower penetration. Shielding gas mainly protects the weld pool and does not change the energy delivered; electrode diameter can influence the current setting and thus energy, but the direct, movement-related factor that alters heat input is travel speed; electrode color has no bearing on heat input.

8. In the wire designation ER70S-6, what does the number 70 signify?

- A. The wire size code
- B. The gas type used
- C. The tensile strength expressed in psi (70 represents 70,000 psi)**
- D. The current setting

The number shown is the weld metal's strength rating. In ER70S-6, 70 means the wire is rated for a minimum tensile strength of 70 ksi, which is 70,000 psi. This tells you how strong the deposited weld will be. It isn't about wire diameter, shielding gas, or the welding current setting. The rest of the designation—ER for electrode wire, S for solid wire, and the -6 for the deoxidizer/alloying level—gives other characteristics, but the 70 specifically communicates the strength requirement.

9. What is the typical preheat temperature range in Fahrenheit for steel patches in collision repair MIG welding?

- A. 0-32°F.
- B. None; preheating is not used.
- C. 300-500°F (150-250°C).**
- D. 1000-1200°F.

Preheating before MIG welding a steel patch helps control heat flow and reduces problems like hydrogen cracking, excessive shrinkage, and distortion in the welded joint. For typical automotive patch repairs on mild steel sheet, warming the area to about 300–500°F (150–250°C) is common practice. This temperature is hot enough to slow the cooling of the weld, which lowers the risk of brittle cracking and helps the patch fuse more smoothly without pulling the surrounding metal out of alignment. The lower option is not appropriate because freezing temperatures do not represent a preheat; you'd still be dealing with rapid cooling and potential cracking. The idea that preheating isn't used isn't accurate for many collision repair scenarios where moisture, coating, or steel thickness can make preheating beneficial. The high range around 1000–1200°F would overheat thin sheet metal, likely causing burn-through, excessive distortion, or damage to coatings and adjacent metal. So, the typical preheat range for steel patches in collision repair MIG welding is about 300–500°F.

10. What is a recommended method to prepare aluminum for MIG welding to remove oxide quickly and effectively?

- A. Use a steel brush and acetone wash
- B. Use a dedicated aluminum brush, wipe with acetone or IPA, and if heavy oxide, lightly etch with an aluminum oxide cleaner**
- C. Sand with steel wool only
- D. Ignore oxide and weld anyway

Aluminum oxide forms quickly on the surface and is non-conductive, which stops the weld from wetting properly. To get a sound MIG weld, you must expose clean, bare aluminum metal. The best approach is to use a dedicated aluminum brush (non-ferrous bristles) to scrub away the oxide, then wipe the area with acetone or isopropyl alcohol to remove oils and fingerprints. If the surface is heavily oxidized, lightly etch with an aluminum oxide cleaner to break down and remove the stubborn film, then rinse and dry before welding. This sequence prevents iron contamination from steel tools, reduces oils and contaminants, and ensures a conductive, clean surface for good fusion and weld quality. Skipping oxide removal or welding over oxide leads to porosity and weak welds.

SAMPLE

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://gmaweldingforcollisionrepair.examzify.com>

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

SAMPLE