

CANADIAN WELDING BUREAU (CWB) LEVEL I PRACTICE EXAM (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
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 statement best describes the role of shielding, deoxidizers, and alloying elements in electrode coating for shielded metal arc welding?**
 - A. The coating provides flux for shielding, deoxidizers, and alloying elements in the weld.
 - B. The coating solely protects the electrode from corrosion during storage.
 - C. The coating does not affect weld quality.
 - D. The coating is melted away after welding and serves no purpose.
- 2. For a plug weld, where is the depth of filling indicated on the welding symbol?**
 - A. Left of the weld symbol.
 - B. Below the weld symbol.
 - C. On the right side of the weld symbol.
 - D. Inside the weld symbol.
- 3. Fillet welds join two surfaces at a right angle with what type of bead?**
 - A. Triangular bead
 - B. Square bead
 - C. Circular bead
 - D. Rectangular bead
- 4. What is considered the main element of a welding symbol?**
 - A. The tail
 - B. The reference line
 - C. The arrow
 - D. The weld symbol face
- 5. In a fillet weld, what is the effect of increasing leg length and what is the potential drawback if it gets too large?**
 - A. Increasing leg length has no effect.
 - B. Leg length only affects appearance.
 - C. Increasing leg length increases throat thickness and strength, but too large can cause weight and distortion.
 - D. Weld strength decreases with leg length.

6. Where would the length of a test section be indicated?

- A. To the left of the symbol.
- B. To the right of the symbol.
- C. Above the symbol.
- D. In the tail of the symbol.

7. What are multiple reference lines used for with a welding symbol?

- A. A sequence of operation starting closest to the arrow working away from the arrow.
- B. A sequence of operation starting with the weld symbol on arrow side significant.
- C. A sequence of operation starting furthest from the arrow working toward the arrow.
- D. A sequence of operation that must start with arrow side, working toward other side.

8. On a plug weld, where is the depth of filling indicated?

- A. Left of the weld symbol.
- B. Below the weld symbol.
- C. On the right side of the weld symbol.
- D. Inside the weld symbol.

9. If you notice a defect during visual inspection, what is the correct course of action?

- A. Ignore and continue
- B. Mark the defect, stop welding, assess with the WPS/PQR, and repair according to procedure
- C. Rework only off-line
- D. Change the procedure

10. What is the purpose of a chipping hammer in welding?

- A. To break and remove slag after welding to expose the finished weld.
- B. To strike the arc
- C. To grind the weld
- D. To measure weld depth

Answers

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

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Explanations

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1. Which statement best describes the role of shielding, deoxidizers, and alloying elements in electrode coating for shielded metal arc welding?

- A. The coating provides flux for shielding, deoxidizers, and alloying elements in the weld.**
- B. The coating solely protects the electrode from corrosion during storage.
- C. The coating does not affect weld quality.
- D. The coating is melted away after welding and serves no purpose.

The main idea is that the electrode coating in shielded metal arc welding acts as flux that does more than just hold the electrode together. As the arc and electrode melt, the coating decomposes to create a shielding environment for the weld pool, both through gaseous shielding and slag coverage. It also contains deoxidizers that bind oxygen and sulfur, reducing porosity and inclusions, and it includes alloying elements that enter the weld metal to influence its chemistry, microstructure, and resulting mechanical properties. This combination is why the coating is essential to weld quality, not just a storage or physical wrapper. So, the statement that the coating provides flux for shielding, deoxidizers, and alloying elements in the weld best describes its role. The other options miss these active contributions: shielding and slag formation occur during welding, not just for storage protection; the coating does affect weld quality; and while some flux is consumed or forms slag, it still serves a critical purpose during and after welding.

2. For a plug weld, where is the depth of filling indicated on the welding symbol?

- A. Left of the weld symbol.
- B. Below the weld symbol.
- C. On the right side of the weld symbol.
- D. Inside the weld symbol.**

The depth of filling for a plug weld is shown inside the plug weld symbol. This placement keeps the fill-depth measurement directly with the plug's geometry, separate from the hole diameter or the weld's location on the joint. Reading it inside the symbol makes it clear how deep the weld material should extend into the hole area, which is the crucial dimension for a plug weld. Other placements would confuse the parameter with the hole size, side of the joint, or their other positional notes, so the symbol itself carries the fill-depth information where it belongs.

3. Fillet welds join two surfaces at a right angle with what type of bead?

- A. Triangular bead**
- B. Square bead
- C. Circular bead
- D. Rectangular bead

When joining two surfaces at a right angle, a fillet weld fills the corner between them, and the deposited metal runs along each surface. This creates a cross-section that looks like a triangle, with the two legs spanning along the meeting faces. The bead's triangular shape comes from the way the weld sits in the corner, bounded by the two metal faces and the weld face. Because of this geometry, a triangular bead is the characteristic shape for fillet welds.

4. What is considered the main element of a welding symbol?

- A. The tail
- B. The reference line**
- C. The arrow
- D. The weld symbol face

The reference line is the backbone of a welding symbol. It provides the horizontal baseline where the weld shape, size, and other details are placed, and from which all information about the weld is read. The arrow simply points to where the weld is located on the joint, and the tail carries additional notes or requirements. The weld symbol face (the actual shape indicating the weld type) sits on or near this line, but it's the reference line that ties everything together and carries the meaning of the symbol. That's why it's considered the main element.

5. In a fillet weld, what is the effect of increasing leg length and what is the potential drawback if it gets too large?

- A. Increasing leg length has no effect.
- B. Leg length only affects appearance.
- C. Increasing leg length increases throat thickness and strength, but too large can cause weight and distortion.**
- D. Weld strength decreases with leg length.

In a fillet weld, the leg length is the distance along each weld face from the root to the toe. The load-bearing capability of a fillet weld is governed by its throat thickness—the shortest distance through the weld cross-section from the root toward the face. For a symmetrical 45-degree fillet, the throat thickness is about 0.707 times the leg length, so increasing the leg length thickens the throat and typically increases the weld's strength in sharing the load. However, pushing the leg length too large brings more heat into the joint, which raises the risk of distortion or warpage, adds weld metal (weight) and potential post-weld cleanup, and can even lead to issues like burn-through on thin parts. So the correct view is that increasing leg length increases throat thickness and strength, but too-large leg lengths introduce weight and distortion concerns.

6. Where would the length of a test section be indicated?

- A. To the left of the symbol.
- B. To the right of the symbol.**
- C. Above the symbol.
- D. In the tail of the symbol.

In welding symbols, dimensions that describe the weld are placed alongside the symbol in a fixed layout. The length of the weld is shown to the right of the weld symbol on the reference line, so as you read the symbol from left to right you immediately see the size or type of weld, followed by how long that weld should be. The left of the symbol is typically used for the weld size, the tail holds additional notes or process qualifiers, and whether the weld is on the arrow side or the opposite side is shown by placement above or below the line. So the correct convention is to place the length to the right of the symbol.

7. What are multiple reference lines used for with a welding symbol?

- A. A sequence of operation starting closest to the arrow working away from the arrow.**
- B. A sequence of operation starting with the weld symbol on arrow side significant.
- C. A sequence of operation starting furthest from the arrow working toward the arrow.
- D. A sequence of operation that must start with arrow side, working toward other side.

When a weld joint requires more than one weld, multiple reference lines indicate the sequence of operations to perform along the joint. The order is read starting at the arrow side and moving away from the arrow. This means the weld on the reference line closest to the arrow is done first, followed by the next line, and so on toward the opposite side. This convention keeps the manufacturing sequence clear and ensures each successive weld is carried out in the intended order. Starting from the furthest reference line or starting on the opposite side would obscure the intended progression, which is why the closest-to-the-arrow approach is the proper method.

8. On a plug weld, where is the depth of filling indicated?

- A. Left of the weld symbol.
- B. Below the weld symbol.
- C. On the right side of the weld symbol.
- D. Inside the weld symbol.**

For plug welds, the depth of filling is a detail that belongs directly to that weld callout, so it is shown inside the weld symbol itself. The circle in a plug weld indicates the hole or plug, and the depth value placed inside the symbol specifies how deep the weld material should fill the hole. Placing this dimension inside the symbol keeps it unambiguous and tied to that specific weld, regardless of how the symbol is read on the drawing. Other locations aren't used for this purpose because the left, below, or right sides of the symbol are reserved for other dimensions or for different weld types. Keeping the depth of filling inside the symbol ensures it isn't confused with hole diameter, length, or other callouts.

9. If you notice a defect during visual inspection, what is the correct course of action?

- A. Ignore and continue
- B. Mark the defect, stop welding, assess with the WPS/PQR, and repair according to procedure**
- C. Rework only off-line
- D. Change the procedure

When a defect is spotted during visual inspection, you must stop welding, clearly mark the defect, and use the approved Welding Procedure Specification and Procedure Qualification Record to determine if and how it can be repaired. Then carry out the repair exactly as defined in the procedure and re-inspect to verify that the weld now meets acceptance criteria. This approach protects weld integrity and provides traceability. Ignoring the defect or continuing to weld would risk a substandard joint, and changing the procedure without proper approval isn't allowed.

10. What is the purpose of a chipping hammer in welding?

- A. To break and remove slag after welding to expose the finished weld.**
- B. To strike the arc
- C. To grind the weld
- D. To measure weld depth

The main idea here is removing slag to reveal a clean weld surface. After welding with flux or filler, a layer of slag forms on top of the bead. The chipping hammer is used to crack and knock off this slag so you can inspect the weld and ensure the metal underneath is properly fused and clean. Its design—with a chisel-like end to pry and a hammering end to break slag—is specifically for this task. It isn't used to strike the arc (that's the electrode holder's job), nor to grind the weld, nor to measure weld depth. Removing slag is a normal step in the welding process to meet quality standards.

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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://cwblevel1.examzify.com>

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

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