WELD 101 C Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

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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

1. Which statement is NOT a reason to use hardfacing?

A. Combat wear

B. Prolong life of an object

C. Reduce down time

D. Increase cost of replacement parts

2. The CAC-A system operates at a regulated air pressure range. Which range below matches typical operation?

A. 80-100 psi

B. 40-60 psi

C. 120-140 psi

D. 20-40 psi

3. In reference line diagrams used in welding, the arrow indicates which side?

A. Bottom side

B. Top side

C. Left side

D. Right side

4. Which low-temperature heat treatment is used to relieve residual stresses after welding?

A. Preheat

B. Tempering

C. Stress relieving

D. Normalizing

5. Which of the following is an advantage of an AC transformer?

A. Low Cost and No Arc Blow

B. High Heat Output

C. Requires DC Input

D. Increases Arc Blow

6. What is a dressing tool used for?

A. refacing or sharpening a grinding stone

B. polishing welds

C. smoothing welds

D. removing rust

7. What electrical term is abbreviated as AC?

A. Alternating current

B. Direct current

C. Alternating capacitance

D. Amplified current

8. The explosive mixture range of acetylene in air is expressed as which percent range?

A. 2.5 - 80%

B. 5 - 95%

C. 1 - 10%

D. 10 - 50%

9. GMAW guns are rated by which parameter?

A. Current Carrying Capacity

B. Voltage Rating

C. Weight

D. Nozzle Size

10. What shielding gas is used when using self-shielded FCAW?

A. None is required

B. Argon

C. CO2

D. Helium

Answers

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

Explanations

1. Which statement is NOT a reason to use hardfacing?

A. Combat wear

B. Prolong life of an object

C. Reduce down time

D. Increase cost of replacement parts

Hardfacing adds a wear-resistant layer to surfaces that endure lots of abrasion or impact, so the component lasts longer and sheds less material over time. The main benefits are resisting wear, extending service life, and cutting downtime because components don't need changing as often. So reasons to use hardfacing include combating wear, prolonging life, and reducing downtime. The idea of increasing the cost of replacement parts isn't a goal of hardfacing; it would work against its purpose by making components more expensive to swap out. In practice, the upfront effort and materials for hardfacing are justified by lower wear rates and longer intervals between replacements, saving money overall.

2. The CAC-A system operates at a regulated air pressure range. Which range below matches typical operation?

A. 80-100 psi

B. 40-60 psi

C. 120-140 psi

D. 20-40 psi

Pneumatic systems rely on a steady, moderate air pressure to reliably actuate valves and move components. The CAC-A system is designed to operate within a range that provides enough force to cycle parts quickly and consistently, while staying within what standard shop air regulators and compressors can deliver safely. Around 80–100 psi gives that balance: it's high enough to ensure reliable actuation and smooth operation, yet within the common limits of typical regulated shop air. Lower ranges like 40–60 psi or 20–40 psi can be too weak to actuate the components reliably, leading to sluggish or failed cycles. Pushing pressure much higher, such as 120–140 psi, isn't needed for normal CAC-A operation and can stress hoses, fittings, and valves, increasing wear and safety concerns. So the typical operation range best fits with around 80–100 psi.

3. In reference line diagrams used in welding, the arrow indicates which side?

A. Bottom side

B. Top side

C. Left side

D. Right side

In welding reference line diagrams, the arrow shows where on the joint the weld is to be made. The side of the joint to weld is shown by where the weld symbol sits relative to the reference line: if the symbol is placed below the line, the weld is on the bottom side; if it's above, the weld is on the top side. So, when the symbol is drawn on the bottom side of the reference line, that indicates the bottom (underside) of the joint should be welded.

4. Which low-temperature heat treatment is used to relieve residual stresses after welding?

A. Preheat

B. Tempering

C. Stress relieving

D. Normalizing

Residual stresses from welding can leave a component distorted or prone to cracking if not relieved. A low-temperature post-weld heat treatment called stress relieving is designed to do just that: relax internal tensile stresses without significantly altering the metal's microstructure or properties. By heating to a temperature below the transformation range and holding for a suitable time, atoms rearrange enough to ease stresses, which improves dimensional stability and reduces cracking risk during service. Other options either act before welding (preheat), or aim to change hardness or grain structure at higher temperatures (tempering or normalizing), so they don't specifically target relieving residual welding stresses in the same way.

5. Which of the following is an advantage of an AC transformer?

A. Low Cost and No Arc Blow

B. High Heat Output

C. Requires DC Input

D. Increases Arc Blow

AC transformer welders are valued for low cost and reduced arc blow. The essential idea is that the current reverses polarity with every cycle, so the magnetic field around the arc doesn't build up in one direction. That constant reversal helps keep the arc centered and minimizes arc blow. At the same time, the transformer-based design is simple and rugged, which keeps production and maintenance costs down. The other statements don't fit because this setup runs on AC, not DC input, and isn't primarily praised for high heat output or for increasing arc blow.

6. What is a dressing tool used for?

A. refacing or sharpening a grinding stone

B. polishing welds

C. smoothing welds

D. removing rust

A dressing tool is used to recondition a grinding wheel by removing glaze and clogged material, breaking down the bond to expose fresh abrasive grains, and trueing the wheel's surface. This keeps the wheel cutting effectively and prevents overheating or dull finishes. That's why it's described as refacing or sharpening a grinding stone—the tool restores the wheel so it can grind properly again. Polishing or smoothing welds and removing rust are done with other finishing or cleaning tools, not with a dressing tool. In practice, you dress a wheel when it becomes loaded or glazed to restore its cutting action.

7. What electrical term is abbreviated as AC?

A. Alternating current

B. Direct current

C. Alternating capacitance

D. Amplified current

AC refers to electric current that periodically reverses direction. The term AC is short for Alternating Current, which describes a flow that changes direction over time. This is different from direct current, which runs in one steady direction. The other options aren't standard terms: "Alternating capacitance" isn't a recognized electrical term, and "amplified current" isn't a standard abbreviation. In practical wiring and welding contexts, mains power is AC, and understanding that AC means alternating current helps you interpret how equipment and settings relate to arc behavior and power delivery.

8. The explosive mixture range of acetylene in air is expressed as which percent range?

A. 2.5 - 80%

B. 5 - 95%

C. 1 - 10%

D. 10 - 50%

Acetylene will ignite only if its concentration in air falls between its lower and upper explosive limits. For acetylene, this range is about 2.5% to 80% by volume in air. Below 2.5%, the mixture is too lean to ignite; above 80%, it's too rich to sustain a flame. The option 2.5% to 80% matches these LEL/UEL values, making it the correct range. The other ranges don't reflect acetylene's actual flammable limits.

9. GMAW guns are rated by which parameter?

A. Current Carrying Capacity

B. Voltage Rating

C. Weight

D. Nozzle Size

In GMAW, what the gun is rated for is the current it can safely carry through its cables, contact tip, and insulation—the current carrying capacity. This rating matters because welding at higher currents generates more heat, and staying within the gun's current limit prevents overheating, insulation damage, and premature wear. The voltage setting is a feature of the power source and arc control, not a specification of the gun itself. The nozzle size and the gun's weight affect gas coverage and handling, but they don't define the electrical capability of the gun. So the gun's practical limit is its current carrying capacity.

10. What shielding gas is used when using self-shielded FCAW?

A. None is required

B. Argon

C. CO2

D. Helium

Self-shielded FCAW relies on the flux inside the wire to protect the weld. As the electrode burns, the flux releases shielding gases and forms slag that surround and shield the molten pool. Because the shielding comes from the flux itself, no external shielding gas is used. External gases like argon or CO2 are used with gas-shielded FCAW or GMAW, not with self-shielded FCAW. So none is required.

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://weld101c.examzify.com

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