

Oxyfuel Cutting 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. What is the maximum PSI a high-pressure fuel gas regulator can read?**
 - A. 15 psi**
 - B. 40 psi**
 - C. 400 psi**
 - D. 100 psi**
- 2. What color is the oxygen cylinder used in oxyfuel cutting?**
 - A. Red**
 - B. Green**
 - C. Blue**
 - D. Yellow**
- 3. What does the weight of a gas cylinder indicate?**
 - A. It shows the age of the cylinder**
 - B. It determines how much liquefied gas is left**
 - C. It indicates the gas type inside**
 - D. It reflects the pressure within the cylinder**
- 4. What is the function of a cutting tip in oxyfuel cutting?**
 - A. To increase gas flow for a larger flame**
 - B. To focus the oxy-acetylene flame for cutting**
 - C. To control temperature fluctuations during cutting**
 - D. To support the weight of the torch**
- 5. When using oxygen with propylene gas, what is the flame temperature?**
 - A. 4,600 degrees F**
 - B. 5,300 degrees F**
 - C. 5,130 degrees F**
 - D. 4,580 degrees F**
- 6. What does red-lining at 15 psi on acetylene gauges signify?**
 - A. A warning against increasing pressure**
 - B. A function of the gas flow**
 - C. A reminder for maintenance**
 - D. An indicator of gas purity**

- 7. How does the thickness of the material affect the cutting speed?**
- A. Thicker materials generally allow for faster cutting speeds**
 - B. Thicker materials generally require slower cutting speeds**
 - C. Thickness does not affect cutting speed**
 - D. Thinner materials require more pressure**
- 8. What does gouging refer to in oxyfuel cutting?**
- A. Cutting a groove into a surface**
 - B. Removing excess material around edges**
 - C. A method for cleaning welds**
 - D. The technique of cutting rivets**
- 9. What equipment is used to check for leaks in oxyfuel systems?**
- A. Pressure gauge**
 - B. Soap solution**
 - C. Oil-based lubricant**
 - D. Digital sensor**
- 10. How should oxyfuel cylinders be stored to ensure safety?**
- A. Laid down in a storage shed**
 - B. Stored upright in a well-ventilated area, away from flammable materials**
 - C. In a sealed container with no air access**
 - D. Kept near heat sources for easy access**

Answers

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

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Explanations

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1. What is the maximum PSI a high-pressure fuel gas regulator can read?

- A. 15 psi
- B. 40 psi
- C. 400 psi**
- D. 100 psi

The maximum PSI a high-pressure fuel gas regulator can read is 400 psi. High-pressure regulators are specifically designed for applications where the controlled pressure needs to be higher than what standard low-pressure regulators can provide. In typical oxyfuel cutting applications, a high-pressure fuel gas regulator is crucial because it allows for the use of gases like acetylene, which can be stored at higher pressures in cylinders. This capability is important for efficiency and safety in cutting operations, as it ensures that the supply of fuel gas meets the demands of the cutting torch, delivering the necessary fuel flow at adequate pressure. The range of 400 psi is often standard for high-pressure regulators, while lower PSI options are suited for different applications that do not require as high of pressures. Understanding the function and limits of this equipment is critical for safe and effective oxyfuel cutting.

2. What color is the oxygen cylinder used in oxyfuel cutting?

- A. Red
- B. Green**
- C. Blue
- D. Yellow

The oxygen cylinder used in oxyfuel cutting is standardized to be green. This color coding is important for safety and identification, as it helps ensure that individuals working with different types of gases can easily distinguish between them. The green color specifically indicates that the cylinder contains oxygen, which is vital for the combustion process in oxyfuel cutting. In various regions, including the United States, this color association is maintained to promote safety regulations and best practices within the industry, preventing accidents that could occur if cylinders were misidentified. It's also valuable in emergency situations where quick identification of gas types is essential for appropriate handling.

3. What does the weight of a gas cylinder indicate?

- A. It shows the age of the cylinder
- B. It determines how much liquefied gas is left**
- C. It indicates the gas type inside
- D. It reflects the pressure within the cylinder

The weight of a gas cylinder is an important indicator of how much liquefied gas is remaining inside. As gas is consumed from the cylinder, its weight decreases, allowing users to estimate the remaining amount of gas. This measurement is critical for safety and efficiency, ensuring that users can manage their supply without running out unexpectedly during use. While the age of the cylinder, the type of gas inside, and the internal pressure are all important factors regarding gas cylinders, they do not directly relate to the weight of the cylinder. Age is typically determined through inspection and markings, gas type is identified through labeling, and pressure is measured using gauges, rather than inferred from weight. Thus, the weight serves as a clear and practical measure of the quantity of gas available.

4. What is the function of a cutting tip in oxyfuel cutting?

- A. To increase gas flow for a larger flame
- B. To focus the oxy-acetylene flame for cutting**
- C. To control temperature fluctuations during cutting
- D. To support the weight of the torch

The role of a cutting tip in oxyfuel cutting is crucial for achieving an efficient and precise cut. The cutting tip is specifically designed to focus the oxy-acetylene flame to create a high-heat concentration at the cutting edge of the material. This focused heat ensures that the metal reaches its ignition temperature quickly, allowing for clean and effective cutting. By directing the oxy-acetylene mixture, the cutting tip enhances the efficiency of the combustion process, allowing the flame to penetrate and oxidize the metal effectively. The design of the tip also allows for a narrow cutting path, which is essential in minimizing unnecessary material removal and improving the overall quality of the cut. In contrast, increasing gas flow, controlling temperature fluctuations, or supporting the weight of the torch do not serve the primary function of the cutting tip. Those aspects may contribute to the operation of the torch or the overall cutting process, but the defining feature of the cutting tip is its ability to focus and direct the flame for optimal cutting performance.

5. When using oxygen with propylene gas, what is the flame temperature?

- A. 4,600 degrees F
- B. 5,300 degrees F
- C. 5,130 degrees F**
- D. 4,580 degrees F

When using oxygen with propylene gas, the flame temperature can reach approximately 5,130 degrees Fahrenheit. This high flame temperature is a result of the efficient combustion process that occurs when oxygen is combined with propylene, which is known for its high energy content. The flame produced is hotter compared to many other fuel gases because of the optimal mixing and the high availability of oxygen, which accelerates the combustion reaction. This temperature is sufficient for various cutting applications and can effectively melt and cut through metals, making it a valuable method in industries requiring high-temperature operations. Understanding these flame temperatures is crucial for safety and operational efficiency, as they allow practitioners to select the appropriate gas mixtures and settings tailored to the specific materials and thicknesses they are working with.

6. What does red-lining at 15 psi on acetylene gauges signify?

A. A warning against increasing pressure

B. A function of the gas flow

C. A reminder for maintenance

D. An indicator of gas purity

Red-lining at 15 psi on acetylene gauges signifies that this pressure level is a warning against increasing further pressure. This threshold is important because acetylene is highly flammable and can become unstable if the pressure exceeds certain limits, particularly in environments where there may be open flames or sparks. Operating at or above this red-line pressure can lead to hazardous situations, including the risk of an explosion. This warning also helps ensure that the equipment operates safely within the recommended pressure range, allowing for optimal cutting performance without compromising operator safety. Other options do not address this critical aspect of safety and pressure management when using acetylene for oxyfuel cutting.

7. How does the thickness of the material affect the cutting speed?

A. Thicker materials generally allow for faster cutting speeds

B. Thicker materials generally require slower cutting speeds

C. Thickness does not affect cutting speed

D. Thinner materials require more pressure

The thickness of the material plays a significant role in determining the cutting speed during oxyfuel cutting processes. Thicker materials typically require a slower cutting speed to ensure that the heat from the flame is sufficient to penetrate the material effectively. A slower speed allows for adequate time for the heat to melt the metal and enables the oxygen to oxidize it properly as it flows through the cut. If the cutting speed is too fast on thicker materials, the heat may not be concentrated enough at the cutting edge, which can result in an incomplete cut, poor quality, or even damage to the cutting equipment. On the other hand, thinner materials can be cut more quickly since the heat can effectively penetrate with less time required, as they are more responsive to the heat from the flame. Therefore, understanding the relationship between material thickness and cutting speed is crucial for achieving optimal cutting performance and maintaining the quality of the cut.

8. What does gouging refer to in oxyfuel cutting?

- A. Cutting a groove into a surface**
- B. Removing excess material around edges**
- C. A method for cleaning welds**
- D. The technique of cutting rivets**

Gouging in oxyfuel cutting specifically refers to the process of cutting a groove into a surface. This technique is often employed to create a channel or to remove material from a workpiece. During gouging, the operator uses the oxyfuel torch with a specific nozzle and oxygen flow to produce a high-temperature flame that melts the metal, allowing the molten material to be blown away by the force of the oxygen. This process is crucial in various applications, such as preparing surfaces for welding or structural modifications. While the other options may involve some form of material removal or surface preparation, they do not accurately define gouging as it pertains to oxyfuel cutting. Gouging is distinct in that it is characterized by its ability to create a groove rather than simply cutting through material or cleaning welds.

9. What equipment is used to check for leaks in oxyfuel systems?

- A. Pressure gauge**
- B. Soap solution**
- C. Oil-based lubricant**
- D. Digital sensor**

The use of a soap solution is considered the standard method for checking for leaks in oxyfuel systems due to its effectiveness and ease of use. When applied to joints, fittings, and connections in the system, the soap solution creates bubbles at the site of any leak. The formation of bubbles indicates that gas is escaping, providing a clear visual indication of a leak's presence. This method is reliable, relatively inexpensive, and does not require sophisticated equipment, making it highly suitable for immediate field use. In contrast, while a pressure gauge can measure system pressure and determine if it is at a safe level, it does not directly identify leaks. An oil-based lubricant might make connections easier to assemble and seal but can obscure any escaping gas, thus potentially masking leaks instead of detecting them. Digital sensors can be sophisticated tools for leak detection, but their application may not be as widespread in basic oxyfuel setups, especially in handling smaller leaks where a soap solution would suffice. Therefore, using a soap solution is the most straightforward and effective approach for leak detection in oxyfuel systems.

10. How should oxyfuel cylinders be stored to ensure safety?

- A. Laid down in a storage shed**
- B. Stored upright in a well-ventilated area, away from flammable materials**
- C. In a sealed container with no air access**
- D. Kept near heat sources for easy access**

Oxyfuel cylinders must be stored upright in a well-ventilated area and positioned away from flammable materials to ensure safety. This practice is critical because upright storage prevents the risk of cylinder damage and ensures that any gas leakage can be easily dissipated into the environment. Proper ventilation minimizes the accumulation of gases, particularly oxygen, which can exacerbate fire hazards if flammable materials are present. Placing cylinders away from heat sources prevents potential ignition of flammable gases and keeps the cylinders at a controlled temperature, further ensuring their integrity and safety in storage.

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://oxyfuelcutting.examzify.com>

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