

FDNY CoF - Torch Operations (G-60) Practice Exam (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

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- 1. Where must a Certificate of Fitness Holder keep their certificate during operations?**
 - A. In a secured location**
 - B. On their person**
 - C. In their vehicle**
 - D. On a designated clipboard**

- 2. What must be verified before starting hot work?**
 - A. Weather conditions**
 - B. Availability of necessary tools**
 - C. Completion of the pre-hot work check**
 - D. Approval from local authorities**

- 3. For how long must hot works monitoring reports be kept at the work site?**
 - A. 24 hours after work completion**
 - B. 48 hours after work completion**
 - C. 72 hours after work completion**
 - D. One week after work completion**

- 4. How should a torch be properly lit?**
 - A. Open the oxygen valve first and ignite**
 - B. Open the acetylene valve slightly, ignite, then open the oxygen valve**
 - C. Light the torch with no gas flow**
 - D. Use a match to ignite both gases together**

- 5. Which of the following is true about the hot work authorization?**
 - A. It is optional based on the job type**
 - B. It must be available only after work is done**
 - C. It should be issued by a responsible person**
 - D. It can be ignored if work time is short**

- 6. What does a "neutral flame" signify in torch operations?**
- A. It burns too hot for cutting**
 - B. It has no flame at all**
 - C. It has equal amounts of oxygen and acetylene**
 - D. It is suitable only for welding**
- 7. What is the function of a cutting tip in torch operations?**
- A. To ignite the torch**
 - B. To cool the torch**
 - C. To focus the flame and control heat application**
 - D. To regulate gas flow**
- 8. What is one way to prevent material distortion when welding?**
- A. Increase the welding speed**
 - B. Use proper heat control techniques**
 - C. Use a thicker welding rod**
 - D. Weld at random angles**
- 9. What is an important safety measure to take when operating a torch?**
- A. Wearing only a hard hat**
 - B. Storing flammable materials directly next to the work area**
 - C. Ensuring adequate ventilation in the work area**
 - D. Using a standard lighter for ignition**
- 10. How high should fire extinguishers be mounted on the wall?**
- A. Not more than 10 feet**
 - B. So that the top is not more than 5 feet off the floor**
 - C. At eye level**
 - D. Above a window**

Answers

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

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Explanations

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1. Where must a Certificate of Fitness Holder keep their certificate during operations?

- A. In a secured location**
- B. On their person**
- C. In their vehicle**
- D. On a designated clipboard**

A Certificate of Fitness Holder is required to keep their certificate on their person during operations to ensure that it is readily available for inspection. This practice helps to verify that the individual operating the torch has the necessary qualifications and training, which is crucial for maintaining safety and compliance with regulations. Keeping the certificate on their person allows for immediate access, should an inspector or a supervising authority request proof of certification during ongoing work. Other locations, like a secured location, in a vehicle, or on a designated clipboard do not ensure that the certificate is immediately accessible and visible during operations, potentially compromising safety protocols and regulatory compliance. Always having the certification on hand affirms the holder's preparedness and adherence to the requirements set forth for torch operations.

2. What must be verified before starting hot work?

- A. Weather conditions**
- B. Availability of necessary tools**
- C. Completion of the pre-hot work check**
- D. Approval from local authorities**

Before starting any hot work, it is essential to verify the completion of the pre-hot work check. This check is a critical safety measure that ensures all necessary precautions have been taken to prevent potential hazards associated with hot work activities, such as welding, cutting, or grinding. The pre-hot work check typically involves assessing the work environment, ensuring proper fire safety equipment is in place, identifying nearby combustible materials, and confirming that all personnel involved are aware of safety procedures. The verification process ensures that risks have been managed effectively, which is vital for maintaining a safe working environment. This step is foundational as it helps to prevent accidents that could lead to fire or injury, which are common dangers associated with hot work activities. In contrast, while weather conditions, availability of tools, and approval from local authorities are important considerations, they do not encompass all aspects of safety and risk management as comprehensively as the pre-hot work check.

3. For how long must hot works monitoring reports be kept at the work site?

- A. 24 hours after work completion
- B. 48 hours after work completion**
- C. 72 hours after work completion
- D. One week after work completion

The requirement to retain hot works monitoring reports for 48 hours after work completion is grounded in safety protocols and regulatory guidelines. This time frame ensures that any potential hazards associated with hot work activities, such as welding or cutting, are adequately monitored and that necessary precautions are in place immediately following the work completion. The 48-hour period allows for the assessment of any hot spots that could lead to fires or other safety incidents, ensuring that all areas are properly cooled and safe before the documentation is cleared. While a shorter retention period, like 24 hours, might seem sufficient, it does not provide enough time to ensure that all safety measures have been effectively implemented and verified. Similarly, longer retention periods, such as 72 hours or one week, may lead to unnecessary accumulation of documents and may not align with recommended practices that prioritize prompt resolution of safety concerns. Thus, the 48-hour retention period aligns effectively with procedural safety practices, balancing between necessary oversight and efficient document management.

4. How should a torch be properly lit?

- A. Open the oxygen valve first and ignite
- B. Open the acetylene valve slightly, ignite, then open the oxygen valve**
- C. Light the torch with no gas flow
- D. Use a match to ignite both gases together

The correct procedure for lighting a torch involves opening the acetylene valve slightly, igniting the gas, and then opening the oxygen valve. This method is important because acetylene is a flammable gas that can ignite easily; lighting the torch in this way ensures a controlled ignition that minimizes the risk of backfire. By first allowing a small amount of acetylene to flow, you can create a stable flame, and once it is ignited, adding oxygen allows you to adjust the flame to achieve the desired characteristics, such as the temperature and shape. Using this sequence prevents the risk of a potentially dangerous situation that could arise if oxygen is introduced first without ignition; opening the oxygen valve too early could lead to the accumulation of gas, which could ignite in an uncontrolled manner. Thus, starting with acetylene provides safer control when establishing the flame, making this the recommended practice for torch lighting.

5. Which of the following is true about the hot work authorization?

- A. It is optional based on the job type**
- B. It must be available only after work is done**
- C. It should be issued by a responsible person**
- D. It can be ignored if work time is short**

The correct answer highlights the importance of accountability and safety in hot work operations. A hot work authorization is a critical document that establishes who is responsible for overseeing and ensuring that safety protocols are followed during the execution of operations that involve open flames or other heat-producing equipment. By requiring that the authorization is issued by a responsible person, the organization ensures that someone with the appropriate knowledge and authority is overseeing the work being conducted, thereby minimizing the risk of fire hazards and other safety issues. This responsible person is typically someone who understands the necessary precautions, has the authority to enforce safety measures, and is committed to maintaining a safe working environment. It underscores the principle of safety first in any operation, particularly those involving hot work that can generate sparks or heat capable of igniting flammable materials. In contrast, the other options suggest practices that could undermine safety. Making the authorization optional or a post-operation requirement would potentially expose the work environment to unnecessary risks. Ignoring the requirement based on the perception of short job duration could also lead to accidents if conditions change or if unexpected hazards arise. Thus, the emphasis on a responsible person issuing the authorization stands as a crucial element for safe operations.

6. What does a "neutral flame" signify in torch operations?

- A. It burns too hot for cutting**
- B. It has no flame at all**
- C. It has equal amounts of oxygen and acetylene**
- D. It is suitable only for welding**

A "neutral flame" in torch operations signifies a balanced combustion of both oxygen and acetylene. In a neutral flame, the amounts of oxygen and acetylene are equal, which means that the flame is neither oxidizing (excess oxygen) nor carburizing (excess acetylene). This balance creates a flame that is ideal for most welding applications, producing a clean and stable heat source that minimizes oxidation and enhances the melting of metals without adding unwanted impurities. This flame produces a clear inner cone and an outer envelope, indicating the proper balance and efficiency of the gases being burned. In practical applications, a neutral flame is generally utilized for welding metals such as steel and is preferred in many types of torch operations because it provides consistent results and minimizes thermal distortion. Understanding the significance of a neutral flame can enhance safety and efficiency in torch operations, as using the wrong type of flame could lead to poor welds, excessive smoke, or damage to the material being worked on.

7. What is the function of a cutting tip in torch operations?

- A. To ignite the torch**
- B. To cool the torch**
- C. To focus the flame and control heat application**
- D. To regulate gas flow**

The function of a cutting tip in torch operations is to focus the flame and control heat application. In metal cutting tasks, the cutting tip is specifically designed to create a concentrated jet of flame that achieves the high temperatures necessary for melting the material being cut. This focused flame allows for precise control over where the heat is applied, making it essential for effective cutting and minimizing damage to surrounding material. In torch operations, controlling the heat is crucial; too much heat can lead to warping or unclean cuts, while too little can result in ineffective cutting. By managing the flame's focus, the cutting tip ensures that the operator can quickly and accurately cut through various materials without compromising the integrity of the workpiece. Understanding the role of the cutting tip helps operators leverage their equipment effectively, allowing for improved safety and efficiency during torch operations.

8. What is one way to prevent material distortion when welding?

- A. Increase the welding speed**
- B. Use proper heat control techniques**
- C. Use a thicker welding rod**
- D. Weld at random angles**

Utilizing proper heat control techniques is essential in preventing material distortion during welding. Welding processes generate significant heat, which can cause the base material to expand and contract unevenly. If the heat is not managed appropriately, it may lead to warping or bending of the material as it cools. To maintain better control, welders can employ techniques such as preheating the material, using proper arc length, and controlling the travel speed. Additionally, implementing back-step or weaving patterns can help distribute heat more evenly across the workpiece, reducing the risk of distortion. By focusing on heat management, welders can ensure a more stable weld and preserve the integrity of the workpiece structure. The other methods, while they may have their place in welding practices, do not specifically address the challenge of material distortion as effectively as proper heat control techniques do. For instance, merely increasing welding speed may not ensure low distortion and can lead to a poor-quality weld. Similarly, using a thicker welding rod or welding at random angles could introduce different complications rather than address the heat-related issues that lead to distortion.

9. What is an important safety measure to take when operating a torch?

- A. Wearing only a hard hat**
- B. Storing flammable materials directly next to the work area**
- C. Ensuring adequate ventilation in the work area**
- D. Using a standard lighter for ignition**

Ensuring adequate ventilation in the work area is crucial when operating a torch due to the potential hazards associated with using an open flame. Adequate ventilation helps to disperse any hazardous gases or fumes that may be generated during the torch operation, such as those from burning materials or the use of flammable substances. This reduces the risk of inhalation exposure and minimizes the chances of fire or explosion caused by the build-up of flammable vapors in a confined space. Proper ventilation is a key safety practice that helps to maintain a safe working environment during torch operations. Other choices do not conform to safety standards in torch operation. Wearing only a hard hat is insufficient for protection since additional personal protection equipment is necessary, like goggles or flame-resistant clothing. Storing flammable materials directly next to the work area increases the risk of accidental ignition, making it a dangerous practice. Using a standard lighter for ignition presents safety hazards as well, as it may not be designed for high-temperature use and can pose risks of explosion or flare-ups.

10. How high should fire extinguishers be mounted on the wall?

- A. Not more than 10 feet**
- B. So that the top is not more than 5 feet off the floor**
- C. At eye level**
- D. Above a window**

Fire extinguishers should be mounted so that the top is not more than 5 feet off the floor to ensure accessibility for all individuals. This height facilitates easy reach, allowing people to quickly grab the extinguisher in the event of a fire emergency. If the extinguisher is too high, it may become difficult for someone, especially those who are shorter or are in a hurry, to access it efficiently when quick action is essential. This standard height aligns with safety regulations and best practices for fire safety, reflecting an understanding that ensuring a fire extinguisher's visibility and accessibility can significantly influence response time during an emergency. Proper installation at this height supports compliance with fire safety codes, which aim to protect lives and property.

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://fdnycofg60.examzify.com>

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

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