

GAS TECHNICIAN 2 (G2) LICENSE 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. What is the most effective way to prevent Lime-Scale deposits in Water Heater Tanks?**
 - A. Installing a Water Softener
 - B. Regularly flushing the tank
 - C. Using vinegar in the tank
 - D. Adjusting the water heater temperature
- 2. What is the metric unit for heat energy equivalent to one British Thermal Unit?**
 - A. Joule
 - B. Kilojoule
 - C. Calorie
 - D. Electronvolt
- 3. Which factor does NOT typically affect the required water flow rate in a heating system?**
 - A. The size of the heating coil
 - B. The temperature difference between supply and return water
 - C. The height of the building
 - D. The amount of insulation in the building
- 4. What should be done before adjusting the set point of a gas appliance regulator?**
 - A. Turn off the main gas supply
 - B. Ensure the appliance is operating
 - C. Check the gas pressure downstream
 - D. Measure the gas flow rate
- 5. What type of Flux should be used when Brazing Copper Tubing for a Propane System?**
 - A. Corrosive Type
 - B. Non-Corrosive Type
 - C. Aqueous Flux
 - D. Acidic Flux

- 6. What safety feature is essential for preventing backflow in a fuel gas system?**
- A. Pressure relief valve
 - B. Backflow preventer
 - C. Temperature control valve
 - D. Flow meter
- 7. In terms of gas appliance safety, why is specific gravity important?**
- A. It determines the amount of gas needed for combustion.
 - B. It affects how gas disperses in the air.
 - C. It indicates the maximum appliance input.
 - D. It influences vent size requirements.
- 8. What is the required test duration for a new welded piping system with a supply pressure of 5 PSIG?**
- A. 1 hour
 - B. 12 hours
 - C. 24 hours
 - D. 48 hours
- 9. On an electrical schematic diagram, safety controls are typically drawn where?**
- A. To the left of the loads
 - B. To the right of the loads
 - C. At the bottom of the diagram
 - D. At the top of the diagram
- 10. Which of the following is a corrective action to take for high indoor humidity levels?**
- A. Increase the Temperature
 - B. Seal Cracks and Gaps
 - C. Install a Ventilation System
 - D. Use Air Conditioning

Answers

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

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Explanations

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1. What is the most effective way to prevent Lime-Scale deposits in Water Heater Tanks?

- A. Installing a Water Softener**
- B. Regularly flushing the tank
- C. Using vinegar in the tank
- D. Adjusting the water heater temperature

Installing a water softener is considered the most effective way to prevent lime-scale deposits in water heater tanks. When hard water, which contains high levels of calcium and magnesium, flows through plumbing systems and into appliances like water heaters, these minerals can precipitate out and form lime-scale. A water softener works by using a process called ion exchange to remove these hard minerals from the water. By treating the water before it enters the water heater, a water softener significantly reduces the potential for lime-scale accumulation. With softer water, the risk of deposits forming inside the tank is greatly minimized, enhancing the efficiency and longevity of the water heater. While regularly flushing the tank can help remove any existing lime-scale, it does not prevent future deposits from forming. Using vinegar can assist in removing scale but is not a preventive measure for ongoing issues. Adjusting the water heater temperature may have some effect on how fast deposits form but does not address the root cause, which is the hardness of the water itself. Thus, installing a water softener is the most proactive approach in this context.

2. What is the metric unit for heat energy equivalent to one British Thermal Unit?

- A. Joule**
- B. Kilojoule
- C. Calorie
- D. Electronvolt

The correct unit for heat energy equivalent to one British Thermal Unit (BTU) is the joule. A British Thermal Unit is defined as the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit, and this is commonly converted into the metric system to better compare energy values, particularly in scientific and engineering contexts. One British Thermal Unit is approximately equal to 252.164 joules. The joule is the standard metric unit for energy, making it the most suitable answer in this context. While kilojoules represent a larger amount of energy (1 kilojoule equals 1,000 joules), and calories are another measure of heat energy, they do not directly define the specific conversion from a BTU. The electronvolt is a much smaller unit of energy typically used in particle physics and is not relevant in this context. Thus, recognizing the conversion between BTU and joules highlights the relationship between different energy units and solidifies our understanding of how heat energy is quantified across various measurement systems.

3. Which factor does NOT typically affect the required water flow rate in a heating system?

- A. The size of the heating coil
- B. The temperature difference between supply and return water
- C. The height of the building**
- D. The amount of insulation in the building

In a heating system, the required water flow rate is influenced by several factors that determine how effectively heat is transferred and maintained within the system. The height of the building is not a direct influence on the required water flow rate. The size of the heating coil plays a significant role because it determines how much water can pass through and how much heat can be absorbed. A larger coil typically requires a higher flow rate to adequately transfer the necessary heat. The temperature difference between the supply and return water also affects the flow rate. A greater temperature difference generally means that less water needs to flow to achieve the desired heating effect, while a smaller difference may require more water to move the same amount of energy. The amount of insulation in the building affects heat loss; better insulation can mean that less flow is needed to maintain temperatures, while poorer insulation may require increased flow to compensate for heat loss. In contrast, while the height of the building may affect pressure and demand for heating in general, it does not directly dictate the water flow rate required to achieve adequate heating efficiency in the system. Hence, this factor does not typically affect the required water flow rate in the same way that the other factors do.

4. What should be done before adjusting the set point of a gas appliance regulator?

- A. Turn off the main gas supply
- B. Ensure the appliance is operating
- C. Check the gas pressure downstream**
- D. Measure the gas flow rate

Before adjusting the set point of a gas appliance regulator, checking the gas pressure downstream is essential. This step involves measuring the pressure on the outlet side of the regulator to ensure that it is within the manufacturer's specified range. Proper downstream pressure indicates that the regulator is functioning correctly, and adjustments can be made to achieve optimal performance without risking the appliance's safety or efficiency. Additionally, this measurement helps identify if there are any existing issues with the gas pressure that would need to be addressed before making any adjustments. Properly understanding the downstream pressure allows a technician to make informed decisions when setting the regulator to ensure that the appliance operates safely and effectively under the intended conditions.

5. What type of Flux should be used when Brazing Copper Tubing for a Propane System?

- A. Corrosive Type
- B. Non-Corrosive Type**
- C. Aqueous Flux
- D. Acidic Flux

When brazing copper tubing for a propane system, the use of non-corrosive flux is essential. Non-corrosive fluxes are specifically formulated to prevent the formation of corrosion on the brazed joint and throughout the copper piping system. This is of significant importance in propane systems since any corrosive materials left in the joint could lead to long-term deterioration and potential failure of the system. Non-corrosive fluxes typically contain compounds that do not react negatively with copper or the brazing filler materials, ensuring a clean joint that maintains integrity over time. The application of this type of flux helps facilitate proper heat transfer during the brazing process while providing adequate protection against oxidation without introducing harmful residues. In contrast, the other types of flux mentioned do not meet the necessary requirements for applications in propane systems. For example, corrosive and acidic fluxes can eat away at copper, leading to premature failure, while aqueous flux may not provide adequate protection against oxidation and is generally not suitable for high-temperature brazing operations. Overall, non-corrosive flux is the best choice for brazing copper tubing in order to ensure safe and durable joints in propane systems.

6. What safety feature is essential for preventing backflow in a fuel gas system?

- A. Pressure relief valve
- B. Backflow preventer**
- C. Temperature control valve
- D. Flow meter

In a fuel gas system, a backflow preventer is essential for ensuring that gas flows in only one direction, which helps prevent the return of gas into the supply line. This is particularly important to avoid contamination of the gas supply and to protect the integrity of the system. Backflow can occur if there is a change in pressure, potentially allowing unwanted gases or contaminants to enter the system, leading to safety hazards. The backflow preventer functions by using a mechanical device that closes off flow if it detects reverse flow conditions. This mechanism is critical in maintaining the safety and reliability of fuel gas systems. Other features such as a pressure relief valve are designed to relieve excess pressure, a temperature control valve is intended for managing heat levels within the system, and a flow meter measures the volume of gas flowing through the system. While these components are important for the overall function and safety of the gas system, they do not specifically address the issue of backflow, making the backflow preventer the essential safety feature for that purpose.

7. In terms of gas appliance safety, why is specific gravity important?

- A. It determines the amount of gas needed for combustion.
- B. It affects how gas disperses in the air.**
- C. It indicates the maximum appliance input.
- D. It influences vent size requirements.

Specific gravity is crucial in understanding gas behavior in relation to air. Gases can be lighter or heavier than air, and specific gravity is a measure that compares the density of a gas to that of air. This is particularly important for safety because it affects how gas will disperse in the event of a leak. If a gas has a specific gravity greater than 1, it is heavier than air and will tend to accumulate in low spots, such as basements or the bottom of a room. Conversely, a gas with a specific gravity less than 1 will rise and dissipate into the atmosphere. Understanding these characteristics helps ensure that safety measures, such as detection systems and ventilation, are properly implemented to mitigate risks associated with gas escapes. In summary, specific gravity plays a critical role in determining gas dispersion patterns, making it a key consideration for safety in gas appliances and installations.

8. What is the required test duration for a new welded piping system with a supply pressure of 5 PSIG?

- A. 1 hour
- B. 12 hours
- C. 24 hours**
- D. 48 hours

The required test duration for a new welded piping system is essential for ensuring the integrity and safety of the installation. For a supply pressure of 5 PSIG, the recognized standard test duration is indeed 24 hours. This timeframe is mandated to allow for adequate monitoring of the system, ensuring that any potential issues such as leaks are identified and addressed before the system goes into operation. The 24-hour duration provides a thorough assessment, as it allows for any pressure changes that might occur over time to be detected. This duration is specifically outlined in regulatory guidelines and industry standards to help maintain safety in gas installations. Other durations, such as 1 hour, 12 hours, or 48 hours, do not align with the standard requirements for a system at this pressure level. A shorter test duration may not adequately enough detect small leaks, while excessively long durations are impractical and typically not required. This emphasizes the importance of adhering strictly to established testing protocols to ensure the safety and functionality of gas piping systems.

9. On an electrical schematic diagram, safety controls are typically drawn where?

- A. To the left of the loads**
- B. To the right of the loads
- C. At the bottom of the diagram
- D. At the top of the diagram

In electrical schematic diagrams, safety controls are typically represented to the left of the loads. This positioning aligns with standard practices in circuit design, where the flow of electricity is represented from left to right. Placing safety controls to the left allows for a clear visual organization that reflects the sequence of operations and the sequence of control actions in relation to the loads. This arrangement helps technicians quickly identify and understand the safety mechanisms in place before examining other components of the circuit, such as the loads themselves. This logical flow not only enhances readability but supports effective troubleshooting and maintenance efforts.

10. Which of the following is a corrective action to take for high indoor humidity levels?

- A. Increase the Temperature
- B. Seal Cracks and Gaps
- C. Install a Ventilation System**
- D. Use Air Conditioning

Installing a ventilation system is a highly effective corrective action for managing high indoor humidity levels. This option focuses on improving the exchange of indoor and outdoor air, which can help in reducing moisture accumulation. Proper ventilation allows stale, humid air to be expelled from the indoor environment while pulling in drier air from outside, thereby balancing humidity levels. Ensuring adequate ventilation can significantly improve air quality and reduce the risk of mold growth, as stagnant, humid air creates a conducive environment for mold and other indoor air quality problems. A well-designed ventilation system can effectively control humidity levels, particularly in spaces that generate a lot of moisture, such as kitchens and bathrooms. In addition, other methods like using air conditioning can contribute to controlling humidity, but ventilation systems specifically target the incoming and outgoing air exchange, making them a more specialized solution for humidity control.

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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://gastechnician2.examzify.com>

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

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