

GAS TECHNICIAN 2 (G2) LICENSE PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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. For a Single Natural Draft Appliance with 1,000,000 BTUH input, what is the minimum diameter of the Single Wall Vent Connector?**
 - A. 10 Inch Diameter
 - B. 12 Inch Diameter
 - C. 14 Inch Diameter
 - D. 16 Inch Diameter

- 2. 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

- 3. What are the explosion limits for Propane Gas?**
 - A. 1.5 to 7%
 - B. 2.4 to 9.5%
 - C. 3 to 8%
 - D. 5 to 10%

- 4. What protects a steam boiler if the condensate pump fails to return water to the boiler?**
 - A. Pressure Relief Valve
 - B. Low Water Cut Off
 - C. Safety Shut Off Valve
 - D. High Limit Thermostat

- 5. What will happen if the 24 Volt transformer for a Power Humidifier is wired in series with the humidistat and the humidifier motor?**
 - A. The humidifier motor will not operate
 - B. The humidifier motor will operate properly
 - C. The humidistat will malfunction
 - D. The system will have a power surge

- 6. What is the normal return air requirement for a forced air furnace?**
- A. 600 cfm
 - B. 800 cfm
 - C. 900 cfm
 - D. 1,000 cfm
- 7. What is the most accurate way to determine the amount of propane in a large storage tank?**
- A. Roto Gauge or Slip Tube Gauge
 - B. Digital Scale
 - C. Liquid Level Monitor
 - D. Pressure Gauge
- 8. Which device shuts off the Spark Igniter in a Spark Ignition Dryer after proper ignition?**
- A. Timer
 - B. Ignition Sensor
 - C. Gas Valve
 - D. Thermocouple
- 9. Why is a relief valve used in a gas regulator?**
- A. To ensure continuous gas flow
 - B. To increase the gas pressure
 - C. To ensure the exit pressure does not exceed the design pressure
 - D. To regulate temperature
- 10. An appliance vent must terminate at least how far away from any building mechanical air inlet?**
- A. 4 Feet
 - B. 5 Feet
 - C. 6 Feet
 - D. 8 Feet

Answers

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

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Explanations

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1. For a Single Natural Draft Appliance with 1,000,000 BTUH input, what is the minimum diameter of the Single Wall Vent Connector?

- A. 10 Inch Diameter
- B. 12 Inch Diameter**
- C. 14 Inch Diameter
- D. 16 Inch Diameter

The minimum diameter of the single wall vent connector for a single natural draft appliance with an input of 1,000,000 BTUH is indeed 12 inches. This size is crucial because proper venting is required to ensure efficient combustion and to facilitate the safe expulsion of exhaust gases. In a natural draft system, the size of the vent connector is specified to ensure adequate draft and to minimize the risk of backdraft, which can result in the appliance not functioning correctly and potentially leading to dangerous situations. The 12-inch diameter is determined according to regulatory codes and guidelines that govern venting systems for gas appliances. These specifications take into account the input BTUH and the type of appliance in question. Choosing a vent connector that is too small could impede the flow of exhaust gases, possibly leading to hazardous conditions such as carbon monoxide buildup, while adequately sized venting helps maintain positive draft and appliance safety. Thus, the 12-inch diameter is the correct specification for this particular scenario.

2. 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.

3. What are the explosion limits for Propane Gas?

- A. 1.5 to 7%
- B. 2.4 to 9.5%**
- C. 3 to 8%
- D. 5 to 10%

The explosion limits, also known as the flammability limits, for propane gas are indeed between 2.4% and 9.5% in the air. This range indicates the concentration of propane that can lead to an explosive mixture when mixed with air. When propane concentration is below 2.4%, the mixture is too lean to combust, while a concentration above 9.5% is too rich, preventing combustion. Understanding these limits is crucial for safety in handling propane and in preventing fire hazards. Accurate knowledge of these limits helps technicians ensure that installations and appliances operate within safe parameters, reducing the risk of explosive environments.

4. What protects a steam boiler if the condensate pump fails to return water to the boiler?

- A. Pressure Relief Valve
- B. Low Water Cut Off**
- C. Safety Shut Off Valve
- D. High Limit Thermostat

The Low Water Cut Off is crucial for protecting a steam boiler in the event that the condensate pump fails to return water to the boiler. When the water level in the boiler drops below a certain threshold due to pump failure, the Low Water Cut Off detects this drop in water level and automatically shuts off the boiler to prevent it from operating dry. Operating a boiler without sufficient water can lead to overheating and potential damage to the boiler structure, including the risk of boiler burnout or explosions. In contrast, the other devices listed serve different safety functions: the Pressure Relief Valve is designed to release excess pressure to prevent over-pressurization, the Safety Shut Off Valve is intended to cut off the gas supply in specific emergency situations, and the High Limit Thermostat monitors temperature, shutting down the burner if the temperature exceeds a certain limit. Each plays an important role in overall boiler safety, but none can specifically address the issue of low water levels like the Low Water Cut Off does.

5. What will happen if the 24 Volt transformer for a Power Humidifier is wired in series with the humidistat and the humidifier motor?

- A. The humidifier motor will not operate
- B. The humidifier motor will operate properly**
- C. The humidistat will malfunction
- D. The system will have a power surge

Wiring the 24 Volt transformer for a power humidifier in series with the humidistat and the humidifier motor allows for the proper functioning of the system. In this configuration, when the humidistat detects that the humidity level is below the set point, it closes the circuit, allowing voltage to flow from the transformer to the humidifier motor. This provides the necessary power for the humidifier motor to operate, ensuring that it adds moisture to the air as intended. The series connection ensures that the energizing of the motor is directly controlled by the humidistat; thus, as long as the humidistat is functioning correctly and the transformer is operating, the humidifier motor will run when needed. This linkage is efficient for controlling humidity in spaces, as it allows the humidifier to respond to real-time humidity levels based on the settings of the humidistat. In contrast, if the transformer were incorrectly wired, or if there were issues with the components of the system, there could be various impacts, such as failure of the motor to operate, but the correct scenario of the series configuration results in the humidifier motor operating properly.

6. What is the normal return air requirement for a forced air furnace?

- A. 600 cfm
- B. 800 cfm
- C. 900 cfm**
- D. 1,000 cfm

The normal return air requirement for a forced air furnace typically falls around 900 cubic feet per minute (cfm) for standard residential applications. This figure is based on the need to effectively recycle and distribute the air heated by the furnace back into the living spaces. By ensuring that there is adequate return air, the furnace can maintain efficient heating, avoid excessive cycling, and maintain consistent temperature throughout the home. It's important to note that the specific return air requirement can vary based on the size of the home, the capacity of the furnace, and the overall heating load calculation. However, the figure of 900 cfm serves as a common benchmark used in various heating system designs to ensure proper airflow and efficiency. This ensures that the system is able to deliver heated air adequately throughout the space while also allowing for optimal performance and comfort.

7. What is the most accurate way to determine the amount of propane in a large storage tank?

- A. Roto Gauge or Slip Tube Gauge**
- B. Digital Scale
- C. Liquid Level Monitor
- D. Pressure Gauge

The most accurate way to determine the amount of propane in a large storage tank is through the use of a roto gauge or slip tube gauge. These devices are specifically designed for measuring liquid levels in tanks and provide readings based on the displacement of the liquid within the tank. The roto gauge consists of a float and a mechanism that translates the float's position into a readable measurement, which can be precise when used correctly. Propane, being a liquid under pressure, has various physical properties that can affect measurement accuracy; thus, a rotor gauge provides a direct measurement of the liquid's level, which is valuable in assessing the quantity remaining in the tank. In contrast, while digital scales provide a weight measurement, they require knowledge of the specific gravity of propane and can be influenced by other factors, such as the tank's structure and the weight of residual materials. Liquid level monitors can be effective but may vary in accuracy based on the technology used (e.g., ultrasonic vs. mechanical). Pressure gauges can indicate the pressure in the tank, which correlates to the vapor pressure of propane but does not directly measure the liquid volume, especially as the pressure may change with temperature fluctuations. Thus, the roto gauge or slip tube gauge remains the most reliable method for obtaining

8. Which device shuts off the Spark Igniter in a Spark Ignition Dryer after proper ignition?

- A. Timer
- B. Ignition Sensor**
- C. Gas Valve
- D. Thermocouple

The ignition sensor is responsible for shutting off the spark igniter in a spark ignition dryer once proper ignition has been achieved. This device detects whether a flame is present and, upon confirming that the burner has successfully ignited, it sends a signal to deactivate the spark igniter. This helps prevent continuous sparks, which could be a safety hazard, and allows the system to operate efficiently, as only the flame should continue to burn fuel without the need for ongoing ignition. In a spark ignition system, the role of the ignition sensor is crucial for ensuring that the appliance functions safely and effectively after ignition has occurred. Without this mechanism, there would be a risk of ongoing sparking, which could lead to potential malfunctions or hazardous conditions.

9. Why is a relief valve used in a gas regulator?

- A. To ensure continuous gas flow
- B. To increase the gas pressure
- C. To ensure the exit pressure does not exceed the design pressure**
- D. To regulate temperature

A relief valve is utilized in a gas regulator primarily to ensure that the exit pressure does not exceed the design pressure of the system. The purpose of the relief valve is to act as a safety device that prevents excessive pressure buildup in the gas line, which can lead to dangerous situations such as leaks, ruptures, or equipment failure. When the pressure exceeds a predetermined level, the relief valve opens to release excess gas, thereby maintaining safe operating conditions and protecting other components in the gas system. The proper functioning of the relief valve is critical, as it helps to maintain stability in the pressure regulation process, allowing for safe and efficient gas delivery to the end-use application. This role is essential for the overall safety and reliability of the gas system.

10. An appliance vent must terminate at least how far away from any building mechanical air inlet?

- A. 4 Feet
- B. 5 Feet
- C. 6 Feet**
- D. 8 Feet

In gas appliance venting regulations, it's crucial to ensure that the exhaust gases do not re-enter the building through fresh air inlets or windows. The requirement for vent termination distance from any mechanical air inlet is primarily to prevent contamination of the incoming air, which could lead to unsafe conditions or impaired appliance function. The correct answer, which states that an appliance vent must terminate at least 6 feet away from any building mechanical air inlet, aligns with established safety codes. This distance is intended to create a buffer zone that allows for proper dispersion of exhaust gases, minimizing the risk of them being drawn back into the building's ventilation system. This helps maintain indoor air quality and the safe operation of gas appliances. The other distances provided in the alternative answers either do not offer sufficient separation or are not standardized as per most safety regulations. Therefore, adhering to the 6-foot guideline is an important aspect of ensuring safe installation and operation of gas appliances in relation to building ventilation systems.

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:

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

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