

G2 GAS FITTER PRACTICE EXAM (SAMPLE)

STUDY GUIDE



Prepare with structure. Pass with confidence



Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

Table of Contents

Copyright	1
Table of Contents	2
Introduction	3
How to Use This Guide	4
Questions	5
Answers	8
Explanations	10
Next Steps	16

SAMPLE

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

SAMPLE

- 1. What does the "VA" rating on a transformer represent?**
 - A. Voltage output
 - B. Resistance value
 - C. The available power to the secondary unit
 - D. Input current
- 2. What are the products of complete combustion of natural gas in the air?**
 - A. Carbon monoxide, soot, and heat
 - B. Carbon dioxide, water vapour, and heat
 - C. Hydrogen, carbon dioxide, and ash
 - D. Carbon dioxide, steam, and noise
- 3. What is the first recommended action to take for a symptom like a fluctuating flame?**
 - A. Replace the regulator
 - B. Check the gas supply
 - C. Consult the manufacturer's instructions
 - D. Clean the burner assembly
- 4. How does the size of an orifice for a propane appliance compare to that of a natural gas appliance with the same input?**
 - A. It is larger than the natural gas
 - B. It is smaller than the natural gas
 - C. It is the same size as the natural gas
 - D. It varies based on manufacturer
- 5. What is a common flame characteristic associated with a mechanical premix burner?**
 - A. Long, yellow flame
 - B. Short, quiet, medium flame temperature
 - C. Large size with high input range
 - D. Choppy, intermittent flame

- 6. Which term describes the temperature at which a gas ignites?**
- A. Flash point
 - B. Fire point
 - C. Auto-ignition temperature
 - D. Spontaneous combustion
- 7. In a downflow forced air furnace, where does the supply air exit?**
- A. At the Top
 - B. From the Sides
 - C. At the Bottom
 - D. Through the Front
- 8. What is the primary purpose of a low water cut-off device on gas-fired boilers?**
- A. To enhance system efficiency
 - B. To maintain temperature
 - C. To shut off the burner in the event of an unsafe water level
 - D. To modulate gas flow
- 9. A high intensity surface combustion infrared heater requires:**
- A. Extensive venting
 - B. Periodic maintenance checks
 - C. No vent
 - D. Gas line pressurization
- 10. Which pilot must have its flame sensed before gas is admitted to the main burner?**
- A. Continuous pilot
 - B. Proved pilot
 - C. Intermittent pilot
 - D. Variable pilot

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. What does the "VA" rating on a transformer represent?

- A. Voltage output
- B. Resistance value
- C. The available power to the secondary unit**
- D. Input current

The "VA" rating on a transformer stands for "volt-amperes" and is a measure of apparent power, which indicates the total power available to the secondary unit of the transformer. This rating quantifies how much load a transformer can handle safely and effectively without overheating. In practical terms, it represents the combined effect of voltage and current delivered by the transformer to its load. When evaluating transformer performance, it is essential to understand that this rating serves as a guideline for ensuring that the connected load does not exceed the transformer's capability. For instance, if a transformer has a rating of 500 VA, it can support loads that require up to 500 volt-amperes of power. The focus on the secondary unit is significant because it directly relates to what can be supplied to the devices or circuits powered by the transformer. This ensures that the devices operate at optimal levels without risk of overheating or failure that can arise from exceeding the VA rating.

2. What are the products of complete combustion of natural gas in the air?

- A. Carbon monoxide, soot, and heat
- B. Carbon dioxide, water vapour, and heat**
- C. Hydrogen, carbon dioxide, and ash
- D. Carbon dioxide, steam, and noise

The products of complete combustion of natural gas primarily include carbon dioxide, water vapor, and heat. When natural gas, which mainly consists of methane (CH_4), burns in the presence of sufficient oxygen, it undergoes a chemical reaction where its carbon and hydrogen combine with oxygen to produce carbon dioxide (CO_2) and water (H_2O), while releasing energy in the form of heat. During complete combustion, all the carbon in the methane is converted into carbon dioxide, and all the hydrogen is converted into water. This process is efficient because it maximizes the use of fuel and minimizes the release of harmful byproducts such as carbon monoxide (produced during incomplete combustion) or soot (particulate matter). Understanding the products of combustion is essential for gas fitters, as it informs safety practices and compliance with environmental regulations, helping to reduce emissions and promote cleaner burning procedures. This makes the knowledge of complete combustion crucial for ensuring efficient and safe operations within the field.

3. What is the first recommended action to take for a symptom like a fluctuating flame?

- A. Replace the regulator
- B. Check the gas supply
- C. Consult the manufacturer's instructions**
- D. Clean the burner assembly

When encountering a symptom like a fluctuating flame, consulting the manufacturer's instructions is the first recommended action. This approach is integral because the manufacturer's documentation provides specific guidance tailored to the equipment in question, encompassing troubleshooting steps, safety protocols, and recommended procedures. These instructions often serve as the most accurate reference for the specific characteristics of flame behavior associated with that model and can outline the correct pathway to rectify the issue. By following the manufacturer's instructions, a technician can ensure that they are considering all relevant factors specific to that appliance, including any unique features or design considerations that could contribute to the fluctuating flame. This methodical approach allows for a more strategic assessment of the potential underlying causes, whether they relate to gas pressure, airflow, or component condition. Additionally, while checking the gas supply or cleaning the burner assembly are also important tasks, they may not address the problem comprehensively without the context provided by the manufacturer's guidelines. Therefore, starting with the manufacturer's instructions sets a solid foundation for further diagnostics or repairs.

4. How does the size of an orifice for a propane appliance compare to that of a natural gas appliance with the same input?

- A. It is larger than the natural gas
- B. It is smaller than the natural gas**
- C. It is the same size as the natural gas
- D. It varies based on manufacturer

The correct response is that the orifice for a propane appliance is smaller than that of a natural gas appliance with the same input. This distinction primarily arises from the differences in the physical properties of the two gases. Propane has a higher energy content per cubic foot compared to natural gas (methane), allowing it to produce more heat with less volume. As a result, the smaller orifice for propane is designed to restrict the flow of gas to achieve the same heat output as a larger orifice used for natural gas. The difference in gas density and flame characteristics also influences this requirement. Understanding that the size of the orifice needs adjustment helps ensure proper combustion and efficiency of the appliance. Therefore, when switching from natural gas to propane or vice versa, appropriate modifications to the orifice size are crucial for safe and effective operation.

5. What is a common flame characteristic associated with a mechanical premix burner?

- A. Long, yellow flame
- B. Short, quiet, medium flame temperature**
- C. Large size with high input range
- D. Choppy, intermittent flame

A mechanical premix burner is designed to mix air and gas thoroughly before combustion, which generally results in more efficient and cleaner burning. One of the primary characteristics of this type of burner is its ability to produce a short, quiet flame with a medium flame temperature. This is due to the uniform mixing of the fuel and air, which allows for efficient combustion, resulting in a steady flame that lacks the excess turbulence or air instabilities found in other burner types. The short and quiet nature of the flame indicates that the combustion process is smooth, minimizing noise while reducing the likelihood of incomplete combustion, which can occur in burners that do not premix their fuel and air effectively. The medium flame temperature is indicative of the efficient heat transfer capabilities of the burner, ensuring that the energy output is optimized for various applications. Recognizing these characteristics is crucial for selecting the appropriate burner for specific heating needs and for troubleshooting combustion issues. Therefore, the description of the mechanical premix burner's flame aligns well with efficient operation and optimal performance in gas applications.

6. Which term describes the temperature at which a gas ignites?

- A. Flash point
- B. Fire point
- C. Auto-ignition temperature**
- D. Spontaneous combustion

The term that describes the temperature at which a gas ignites without an external ignition source is known as auto-ignition temperature. This temperature represents the point at which a combustible gas can ignite solely due to the heat present in the environment, without needing a spark or flame. Understanding this concept is crucial for gas fitters, as it helps ensure safe handling and storage of gases. Knowing the auto-ignition temperature of specific gases allows professionals to create safe environments by maintaining temperatures below this threshold, thereby preventing accidental ignition. In contrast, the other terms have distinct definitions: the flash point refers to the lowest temperature at which a liquid produces enough vapor to form an ignitable mixture in air when an ignition source is present. The fire point is similar but represents the temperature at which a liquid produces enough vapor to sustain combustion. Spontaneous combustion involves a material igniting without external heat or ignition source under specific conditions but is not typically associated with the ignition temperatures of gases. Each of these terms plays a different role in fire safety and gas handling but does not specifically describe the phenomena of gases igniting solely due to temperature.

7. In a downflow forced air furnace, where does the supply air exit?

- A. At the Top
- B. From the Sides
- C. At the Bottom**
- D. Through the Front

In a downflow forced air furnace, the supply air exits from the bottom. This type of furnace is designed for installation in a manner that allows the heated air to be distributed downward into the living space. The air is drawn into the furnace from the top, heated by the burners, and then expelled through the bottom. This design is particularly effective for heating spaces where the furnace is located above the areas being heated, such as in certain basement or utility room applications. The bottom discharge ensures that warm air rises into the room, creating a comfortable environment as the heated air circulates. Other configurations, like top or side discharge, are typically associated with upflow or horizontal furnaces, further emphasizing the unique operation and efficiency of the downflow design.

8. What is the primary purpose of a low water cut-off device on gas-fired boilers?

- A. To enhance system efficiency
- B. To maintain temperature
- C. To shut off the burner in the event of an unsafe water level**
- D. To modulate gas flow

The primary purpose of a low water cut-off device on gas-fired boilers is to shut off the burner in the event of an unsafe water level. This safety device plays a crucial role in preventing the boiler from operating dry, which can lead to overheating and potential damage to the boiler or even catastrophic failure. When the water level drops below a predetermined threshold, the low water cut-off detects this condition and automatically interrupts the fuel supply to the burner, safeguarding the system from hazards associated with low water conditions. This safety measure is crucial because boilers rely on water to transfer heat and to create steam. If the water level is too low, the heat generated by the burner can cause the metal surfaces to overheat, leading to structural failures. Therefore, the low water cut-off device is an essential component that ensures safe operation and prevents dangerous situations in gas-fired boilers.

9. A high intensity surface combustion infrared heater requires:

- A. Extensive venting
- B. Periodic maintenance checks
- C. No vent**
- D. Gas line pressurization

A high intensity surface combustion infrared heater operates by generating heat through the combustion of gas while utilizing its surface for radiative heat transfer. One of the defining characteristics of these types of heaters is that they often do not require venting. This is because they are designed to combust gas efficiently and typically function in a manner that minimizes exhaust gasses and pollutants. The combustion process is often contained and managed so that the heat can be directly transferred to the desired area without the need for traditional ventilation systems found in other heating units. The absence of a requirement for a vent is significant as it allows for flexibility in installation and usage in various settings where space or external ventilation may be limited. As long as the heater is properly installed and operated according to manufacturer specifications and local codes, the heater can safely provide heat without the risks typically associated with venting combustion products to the outside. While periodic maintenance checks are advisable for any heating system to ensure safe and efficient operation, and although gas line pressurization is a critical part of overall system function, these aspects do not specifically characterize the nature of operation for a high intensity surface combustion infrared heater. This reinforces the fact that such heaters are designed with unique efficiency in mind, eliminating the need for venting.

10. Which pilot must have its flame sensed before gas is admitted to the main burner?

- A. Continuous pilot
- B. Proved pilot**
- C. Intermittent pilot
- D. Variable pilot

The correct answer is based on safety mechanisms in gas appliances. A proved pilot is a pilot light system designed to ensure that the pilot flame is actually lit and functioning properly before any gas is allowed to flow to the main burner. This is crucial for preventing potential hazards, such as gas leaks or explosions, which could occur if the main burner were to be ignited without a reliable ignition source. In a proved pilot system, a flame sensing device, such as a thermocouple or a flame rectification sensor, continuously monitors the pilot flame. If the flame goes out, the sensing device will shut off the gas supply to the main burner, thus preventing the risk of unburned gas accumulating in the appliance. This safety feature is an essential part of gas safety regulations and helps ensure the safe operation of gas-fired equipment. Other types of pilots, like continuous and intermittent pilots, may have different operational characteristics but often do not provide the same level of proof of flame during operation. Variable pilots may change intensity and are typically more related to specific applications, which do not inherently require flame proofing in the same way as a proved pilot system does. Understanding the nuances of these pilot systems is key to effective and safe gas fitting practices.

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://g2gasfitter.examzify.com>

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

SAMPLE