

G2 GAS FITTER PRACTICE EXAM (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

<https://g2gasfitter.examzify.com>



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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

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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 components are typically found in a standard under-fired storage water heater?**
 - A. Blower, expansion tank, and thermostat
 - B. Temperature and pressure relief valve, anode, and mixing valve
 - C. Heating element, insulation, and drain valve
 - D. Sensors, pump, and control panel
- 2. What is the term for the device that shuts off fuel supply when a safety mechanism is activated?**
 - A. Fuel valve
 - B. Emergency shutoff
 - C. Safety shut off valve
 - D. Flow regulator
- 3. Equipment service bulletins are generally issued by whom?**
 - A. The installation contractor
 - B. The manufacturer
 - C. The TSSA
 - D. The local government
- 4. What should the open circuit test reading of a thermocouple flame sensor be in the specified range?**
 - A. 1-2 mV
 - B. 5-10 mV
 - C. 20-30 mV
 - D. 50-60 mV
- 5. What type of air surrounds a flame for combustion?**
 - A. Primary air
 - B. Secondary air
 - C. Tertiary air
 - D. Contaminated air

- 6. What pressure must propane piping of 200ft in length or less be tested at?**
- A. 25 psig
 - B. 50 psig
 - C. 75 psig
 - D. 100 psig
- 7. What could be a possible reason for a pilot light to extinguish when the pilot button is released?**
- A. Low gas pressure
 - B. A dirty pilot orifice
 - C. A loose thermocouple
 - D. Excessive gas flow
- 8. If the return and supply air plenum are both located on the top of the furnace, what type of furnace is it?**
- A. High Boy
 - B. Low Boy
 - C. Side Boy
 - D. Vertical Furnace
- 9. What do mechanical drawings typically indicate?**
- A. Building energys usage
 - B. Mechanical equipment placement
 - C. Costs of materials
 - D. Architectural styles
- 10. Why is accurate wiring diagram important in installations?**
- A. To ensure a proper layout of furniture
 - B. To comply with aesthetic requirements
 - C. To prevent electrical hazards
 - D. To record previous installations

Answers

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

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Explanations

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1. What components are typically found in a standard under-fired storage water heater?

- A. Blower, expansion tank, and thermostat
- B. Temperature and pressure relief valve, anode, and mixing valve**
- C. Heating element, insulation, and drain valve
- D. Sensors, pump, and control panel

A standard under-fired storage water heater generally includes a temperature and pressure relief valve, an anode, and a mixing valve, all of which play crucial roles in its operation and safety. The temperature and pressure relief valve is vital for safety, as it prevents excessive pressure build-up within the tank. It automatically releases water if the temperature or pressure exceeds safe levels, thus protecting the tank and preventing potential explosions or leaks. The anode rod is an essential component for prolonging the life of the water heater. It helps to prevent tank corrosion by attracting corrosive elements in the water to itself, thus sacrificing itself over time. This sacrificial action significantly extends the lifespan of the tank. The mixing valve is important for maintaining a safe and comfortable water temperature throughout the system. It helps to blend hot water from the heater with cold water to ensure that the water delivered to the fixtures is at a desired and safe temperature, preventing scalding accidents. These components are integral to the functioning and safety of under-fired storage water heaters, making this choice the most accurate representation of what is typically found in such units.

2. What is the term for the device that shuts off fuel supply when a safety mechanism is activated?

- A. Fuel valve
- B. Emergency shutoff
- C. Safety shut off valve**
- D. Flow regulator

The term that appropriately describes the device that ceases the fuel supply when a safety mechanism is triggered is known as the safety shut off valve. This device plays a critical role in ensuring the safety of gas systems by automatically stopping the flow of fuel to prevent accidents or hazardous situations such as leaks or equipment malfunctions. In many gas installations, a safety shut off valve is strategically placed to respond to irregularities or failures in the system. For instance, if a flame goes out or if gas pressure becomes too high, the valve activates, effectively preventing the release of gas into the environment. The operational dependability of this component is essential for the safety and functionality of gas-powered equipment. While other options may sound relevant, they do not accurately encapsulate the specific function of automatically shutting off the gas supply in response to safety concerns. A fuel valve typically refers to a manual or automatic device used to control the flow of fuel without the specific safety function. An emergency shutoff might apply to situations that require immediate response but lack precise operation criteria dictated by safety mechanisms. A flow regulator primarily focuses on controlling pressure and flow rates within the system rather than serving as a safety cut-off. Thus, the safety shut off valve is the most precise term for this vital safety

3. Equipment service bulletins are generally issued by whom?

- A. The installation contractor
- B. The manufacturer**
- C. The TSSA
- D. The local government

Equipment service bulletins are issued by the manufacturer of the equipment. These bulletins serve as vital communication tools that provide important updates, instructions, or warnings related to specific products. They may include information on safety, operational guidelines, maintenance practices, or modifications that ensure the proper function and longevity of the equipment. When a manufacturer identifies a potential issue or improvement, they leverage these bulletins to inform users and service technicians, ensuring consistent performance and compliance with safety standards. This direct line of communication is crucial for maintaining trust and reliability between the manufacturer and users, including installation contractors and consumers. In contrast, other entities such as the installation contractor, the TSSA (Technical Standards and Safety Authority), or local government may play a role in installation, regulation, or enforcement, but they typically do not issue product-specific bulletins. Thus, the manufacturer's role in providing this information is essential for effective equipment service and overall safety.

4. What should the open circuit test reading of a thermocouple flame sensor be in the specified range?

- A. 1-2 mV
- B. 5-10 mV
- C. 20-30 mV**
- D. 50-60 mV

The open circuit test reading of a thermocouple flame sensor is critical for ensuring safe and effective operation of gas appliances. The typical output voltage of a healthy thermocouple flame sensor is usually around 20-30 mV when it is detecting a flame. This range indicates that the sensor is functioning properly and responding effectively to thermal changes caused by the flame. If the reading falls within this range, it confirms that the thermocouple is generating the correct amount of voltage due to the presence of heat, which is essential for the safety mechanisms of gas systems. Lower voltage readings, such as those in the 1-2 mV or 5-10 mV ranges, would suggest issues with the thermocouple or inadequate flame detection. Similarly, significantly higher readings, such as those in the 50-60 mV range, could indicate potential malfunction or miscalibration of the sensor. Understanding these voltage ranges is crucial for troubleshooting and ensuring the reliable operation of gas appliances.

5. What type of air surrounds a flame for combustion?

- A. Primary air
- B. Secondary air**
- C. Tertiary air
- D. Contaminated air

The term "secondary air" refers to the air that mixes with the gas after it has been ignited, playing a crucial role in the combustion process. This air is essential for the complete and efficient burning of fuel, ensuring that the flame remains stable and properly nourished for optimal combustion. In many combustion systems, the primary air is the air that is initially mixed with the gas before ignition, while secondary air is introduced to enhance combustion efficiency and complete the reaction. Proper management of secondary air can reduce emissions and improve the overall performance of gas appliances, making it a vital component for ensuring that flames burn cleanly and efficiently. Tertiary air generally refers to additional air introduced for certain combustion systems to enhance combustion but is not as commonly referenced in standard gas burner setups as primary and secondary air. Contaminated air, on the other hand, would not promote effective combustion and could result in incomplete combustion, leading to hazardous conditions.

6. What pressure must propane piping of 200ft in length or less be tested at?

- A. 25 psig
- B. 50 psig**
- C. 75 psig
- D. 100 psig

For propane piping that is 200 feet in length or less, it is required to be tested at a pressure of 50 psig. This testing is crucial to ensure the integrity and safety of the gas piping system, helping to prevent leaks during operation. Testing at 50 psig is a standard practice that balances safety and practicality, allowing for sufficient pressure to identify any weak points in the system without imposing excessive pressure that could risk pipe failure or compromise fittings and connections. It is important to follow these testing guidelines rigorously to ensure compliance with safety regulations and industry standards, thereby safeguarding both equipment and personnel from hazards associated with gas leaks.

7. What could be a possible reason for a pilot light to extinguish when the pilot button is released?

- A. Low gas pressure
- B. A dirty pilot orifice
- C. A loose thermocouple**
- D. Excessive gas flow

A loose thermocouple could cause the pilot light to extinguish when the pilot button is released because the thermocouple is responsible for detecting the heat from the flame. When the pilot light is on, the thermocouple generates a small voltage that keeps the gas valve open. If the thermocouple is not secured properly, it may not receive adequate heat from the pilot flame once the button is released, causing the gas valve to close and the pilot light to go out. In contrast, factors such as low gas pressure or a dirty pilot orifice might lead to difficulties in maintaining the flame, but they wouldn't directly relate to the behavior observed specifically upon releasing the pilot button. Excessive gas flow could result in an unmanageable pilot flame or cause other operational issues, but the immediate effect of extinguishing upon button release is closely linked to the thermocouple's functionality. Understanding these relationships is crucial for troubleshooting and ensuring safe operation of gas appliances.

8. If the return and supply air plenum are both located on the top of the furnace, what type of furnace is it?

- A. High Boy
- B. Low Boy**
- C. Side Boy
- D. Vertical Furnace

A furnace where both the return and supply air plenums are positioned at the top is identified as a Low Boy furnace. This design is specifically engineered for applications where there are spatial limitations, often found in areas with low ceilings. The "low boy" configuration allows for efficient airflow and ensures that the unit can effectively deliver heated air into the space without requiring significant vertical clearance. The design features of a Low Boy furnace include a shorter vertical profile, making it a perfect fit for smaller spaces while still providing the necessary heating. The placement of the plenums at the top helps facilitate optimal airflow dynamics, allowing for better distribution of heated air into the living space. This is particularly important in ensuring that the system operates effectively without putting undue strain on the equipment due to poor air circulation. In contrast, other types of furnaces, such as the High Boy, Side Boy, or Vertical Furnace, have different configurations that would not fit the scenario described. Understanding these distinctions is crucial for selecting the appropriate furnace type based on the specific requirements of a space.

9. What do mechanical drawings typically indicate?

- A. Building energy usage
- B. Mechanical equipment placement**
- C. Costs of materials
- D. Architectural styles

Mechanical drawings are a crucial component of the design and construction process, particularly in relation to mechanical systems and equipment. They provide detailed visual representations that specify the placement, arrangement, and configuration of mechanical equipment within a building or facility. This information is essential for ensuring that all components fit together properly and operate efficiently within the planned environment. In mechanical drawings, you can expect to find layouts that show where equipment like HVAC systems, plumbing, and gas fittings are to be installed, as well as the interrelationships between different mechanical systems. This level of detail allows contractors and installers to understand exactly how to implement the designs and ensures compliance with codes and regulations. While building energy usage, costs of materials, and architectural styles are also integral to the overall project, they are typically represented in different types of documentation. Building energy usage may be analyzed in energy models, cost estimates are usually found in budgeting documents, and architectural styles would be reflected in the architectural drawings rather than mechanical ones. Thus, the primary focus of mechanical drawings is specifically on equipment placement.

10. Why is accurate wiring diagram important in installations?

- A. To ensure a proper layout of furniture
- B. To comply with aesthetic requirements
- C. To prevent electrical hazards**
- D. To record previous installations

An accurate wiring diagram is crucial in installations primarily to prevent electrical hazards. These diagrams provide a clear representation of how electrical components are interconnected, ensuring that circuits are designed and implemented safely. By understanding the correct layout, installers can identify potential issues such as short circuits, overloads, and incorrect voltage levels, which can lead to dangerous situations like electrical fires or equipment failure. The wiring diagram serves as a guideline that aids in maintaining proper electrical standards and codes, ultimately safeguarding both the installation process and the end-users. In contrast, while layout of furniture, aesthetic requirements, and recording previous installations may have their own significance, they do not focus on the fundamental safety aspects that are critical in ensuring the integrity of electrical 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:

<https://g2gasfitter.examzify.com>

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

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