

SAIT 2nd Year Plumbing Practice Exam (Sample)

Study Guide



Everything you need from our exam experts!

This is a sample study guide. To access the full version with hundreds of questions,

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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. Don't worry about getting everything right, 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, and take breaks to retain information better.

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.

7. Use Other Tools

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!

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Questions

- 1. How can leaks in plumbing be detected?**
 - A. By listening for dripping sounds.**
 - B. By inspecting water bills for sudden increases.**
 - C. By checking for wet spots on walls and floors.**
 - D. All of the above.**
- 2. Which is a critical consideration when installing a P-trap?**
 - A. Distance from the fixture outlet**
 - B. Height above ground**
 - C. Water temperature**
 - D. Material used for the trap**
- 3. When connecting weeping tile to the sanitary building drain, what must be installed?**
 - A. Clean out**
 - B. Backwater valve and trap**
 - C. Expansion tank**
 - D. Access panel**
- 4. Explain the function of a P-trap in a plumbing system.**
 - A. To increase water pressure**
 - B. To prevent clogs**
 - C. To stop sewer gases from entering the building**
 - D. To provide ventilation for drainage**
- 5. How many liters are in one imperial gallon?**
 - A. 3.5 liters**
 - B. 4.5 liters**
 - C. 5.5 liters**
 - D. 6.5 liters**
- 6. How many fixture units (FU's) can discharge into a wet vent from any one story above the first story?**
 - A. 2 FU's**
 - B. 3 FU's**
 - C. 4 FU's**
 - D. 5 FU's**

- 7. What is the code requirement for the slope of a drainage pipe?**
- A. A minimum slope of 1/8 inch per foot for all pipes**
 - B. A minimum slope of 1/4 inch per foot for pipes 3 inches or smaller**
 - C. A minimum slope of 1 inch per foot for all pipes**
 - D. No specific code requirement**
- 8. Which type of pipe is most commonly used for potable water supply?**
- A. Cast iron**
 - B. Copper**
 - C. Polyethylene**
 - D. Asbestos cement**
- 9. What is the minimum diameter of a water supply line typically required for a residential fixture?**
- A. 3/4 inch**
 - B. 1/2 inch**
 - C. 1 inch**
 - D. 5/8 inch**
- 10. What is the primary function of a sump pump?**
- A. Handling wastewater**
 - B. Removing water from basements**
 - C. Circulating hot water**
 - D. Preventing pipe leaks**

Answers

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

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Explanations

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1. How can leaks in plumbing be detected?

- A. By listening for dripping sounds.**
- B. By inspecting water bills for sudden increases.**
- C. By checking for wet spots on walls and floors.**
- D. All of the above.**

Detecting leaks in plumbing involves using various methods, and utilizing all the mentioned techniques can provide a comprehensive approach to identifying potential issues. Listening for dripping sounds is a straightforward yet effective method. A constant dripping noise can indicate that there is a leak present, often in a pipe or a fixture. This auditory cue can alert you to a problem that may not yet be visible. Inspecting water bills for sudden increases is a practical and indirect method of leak detection. If there is an unexplained rise in your water bill, it might suggest that there is a leak consuming more water than usual. This financial indicator can prompt further investigation into the plumbing system. Checking for wet spots on walls and floors is perhaps one of the most visual methods of detecting leaks. Water accumulation or consistent dampness in areas where it should be dry can signal a plumbing issue. Identifying these wet spots can lead to the source of the leak, allowing for timely repairs to prevent further damage. Collectively, these methods enhance the chances of promptly detecting leaks, making the inclusive choice of all the techniques the most effective option for identifying plumbing leaks.

2. Which is a critical consideration when installing a P-trap?

- A. Distance from the fixture outlet**
- B. Height above ground**
- C. Water temperature**
- D. Material used for the trap**

A critical consideration when installing a P-trap is the distance from the fixture outlet. The P-trap is designed to retain a certain amount of water, creating a barrier that prevents sewer gases from entering the living space. This means that the trap must be positioned at the appropriate vertical height relative to the fixture to ensure proper drainage and function. If the trap is too far from the fixture outlet, it may lead to issues such as slow drainage or potential clogs, as the water may not flow correctly into the trap. This distance is essential for maintaining the hydraulic seal and ensuring that gravity helps facilitate drainage effectively. Other options, while relevant in certain contexts, do not have the same direct critical impact on the function of the P-trap as the distance from the fixture outlet.

3. When connecting weeping tile to the sanitary building drain, what must be installed?

- A. Clean out
- B. Backwater valve and trap**
- C. Expansion tank
- D. Access panel

When connecting weeping tile to the sanitary building drain, it is essential to install a backwater valve and trap. The backwater valve serves a critical function in preventing sewer backup into the weeping tile system, which could occur during periods of high rainfall or flooding. This scenario can result in the sanitary sewer overflowing and potentially allowing sewage to flow back into the weeping tile drainage system. Incorporating a trap is equally important, as it helps to maintain a water seal that prevents gases from the sanitary sewer from entering the building. This is crucial for health and safety reasons, as sewer gases can be harmful if allowed to seep into interior spaces. The other choices, while useful components in different contexts, do not specifically address the functionality and necessity of safeguarding the building from backflow and maintaining sanitary conditions when tying in drainage systems. Thus, the combination of a backwater valve and a trap is the appropriate solution for this plumbing scenario.

4. Explain the function of a P-trap in a plumbing system.

- A. To increase water pressure
- B. To prevent clogs
- C. To stop sewer gases from entering the building**
- D. To provide ventilation for drainage

The P-trap plays a crucial role in a plumbing system primarily by stopping sewer gases from entering the building. It is designed as a U-shaped bend in the plumbing pipe that retains a small amount of water within its curved portion. This standing water acts as a barrier, effectively sealing off the pipe and preventing harmful gases, which can contain unpleasant odors and potentially hazardous components, from flowing back into the living space. The design of the P-trap is significant, as it ensures that even if the water in the fixture drains away, the water remaining in the trap maintains this seal. This functionality is essential for maintaining indoor air quality and the health and safety of occupants in the building. While some might think that increasing water pressure, preventing clogs, or providing ventilation could be functions of the P-trap, these are not its primary roles. Water pressure is influenced by other aspects of the plumbing system, clogs can occur for various reasons that involve blockages unrelated to the P-trap, and ventilation needs are addressed by vent pipes designed to regulate drainage flow and pressure, rather than by the trap itself. Understanding the specific function of the P-trap helps in recognizing its importance in preventing the entry of sewer gases into living spaces.

5. How many liters are in one imperial gallon?

- A. 3.5 liters
- B. 4.5 liters**
- C. 5.5 liters
- D. 6.5 liters

One imperial gallon is equivalent to approximately 4.54609 liters. In practical terms, it is often rounded to 4.5 liters for ease of understanding and calculation. The imperial gallon is used primarily in the United Kingdom and some Commonwealth countries, differing significantly from the US customary gallon which contains about 3.785 liters.

Understanding this conversion is essential for plumbing practices that may require precise water measurements, such as in the installation or maintenance of plumbing systems.

6. How many fixture units (FU's) can discharge into a wet vent from any one story above the first story?

- A. 2 FU's
- B. 3 FU's
- C. 4 FU's**
- D. 5 FU's

When determining how many fixture units can discharge into a wet vent from any one story above the first story, it is essential to understand the function of wet vents and plumbing code requirements. A wet vent allows the drainage from one or more fixtures to serve simultaneously as a vent for another fixture or fixtures. According to plumbing codes, specifically referencing the Uniform Plumbing Code (UPC) and International Plumbing Code (IPC), there are provisions that limit the number of fixture units discharging into a wet vent to prevent issues like excessive pressure changes and to ensure proper drainage. In this context, the maximum number of fixture units that can discharge into a wet vent from any one story above the first story has been established as four. This guideline is based on ensuring that there is adequate ventilation for the drainage system while allowing sufficient capacity for drainage without creating back pressure. Thus, the reasoning behind allowing four fixture units is to balance proper air flow through the vents with the handling capacity of the drainage, facilitating efficient waste flow and reducing the risk of clogs or drainage backups. This understanding is crucial for anyone working in plumbing design and installation, as it directly impacts how systems are designed for optimal performance.

7. What is the code requirement for the slope of a drainage pipe?

- A. A minimum slope of 1/8 inch per foot for all pipes**
- B. A minimum slope of 1/4 inch per foot for pipes 3 inches or smaller**
- C. A minimum slope of 1 inch per foot for all pipes**
- D. No specific code requirement**

The requirement for drainage pipe slope is crucial to ensure proper wastewater flow and prevent blockages. The minimum slope of 1/4 inch per foot for pipes 3 inches or smaller is established in plumbing codes to facilitate effective drainage. This slope allows gravity to assist in moving water and waste through the pipe, reducing the risk of standing water or accumulation of solids that could lead to clogs. For larger pipes, different slopes may apply, but for those that are 3 inches or smaller, this standard is particularly important in maintaining the necessary flow dynamics. Adequate slope minimizes the risk of improper drainage and ensures the system operates efficiently. It's also worth noting that a slope of 1/8 inch per foot is generally considered too gentle for such pipes, while a slope of 1 inch per foot could be excessively steep, leading to potential erosion within the pipe or insufficient retention time for solids to settle, which could strain the plumbing system. Overall, adhering to the specified minimum slope of 1/4 inch per foot for smaller pipes is critical for maintaining effective drainage and ensuring long-term plumbing system reliability.

8. Which type of pipe is most commonly used for potable water supply?

- A. Cast iron**
- B. Copper**
- C. Polyethylene**
- D. Asbestos cement**

Copper is the most commonly used type of pipe for potable water supply due to several key factors. It has excellent corrosion resistance, which ensures the longevity and integrity of the water supply system. Copper pipes are also known for their antimicrobial properties, which help in maintaining the safety of drinking water by preventing the growth of bacteria and other pathogens. Additionally, copper is relatively easy to work with, allowing for secure joints and connections through methods like soldering or brazing. This results in a durable and reliable plumbing system that can withstand high temperatures and pressures, making it suitable for both hot and cold water applications. Moreover, copper pipes have a long service life, often exceeding 50 years, which contributes to their popularity in residential and commercial plumbing systems. The overall combination of safety, durability, and performance makes copper the preferred choice for transporting potable water.

9. What is the minimum diameter of a water supply line typically required for a residential fixture?

- A. 3/4 inch**
- B. 1/2 inch**
- C. 1 inch**
- D. 5/8 inch**

The minimum diameter of a water supply line typically required for a residential fixture is indeed 1/2 inch. This size is commonly used in residential plumbing systems for various fixtures such as sinks, toilets, and showers. Using a 1/2 inch line provides adequate flow rates for typical household demands while maintaining appropriate water pressure. A larger diameter, like 3/4 inch or 1 inch, may be necessary for specific applications, such as supplying multiple fixtures simultaneously or in larger homes where greater water supply capacity is needed. However, for individual fixtures, a 1/2 inch line is generally sufficient to meet the plumbing code requirements and ensure proper functioning without excessive pressure loss. The size of the water supply line should always align with the fixture's demand, plumbing code requirements, and overall system design. Therefore, 1/2 inch is recognized as the standard minimum for a single residential fixture connection.

10. What is the primary function of a sump pump?

- A. Handling wastewater**
- B. Removing water from basements**
- C. Circulating hot water**
- D. Preventing pipe leaks**

The primary function of a sump pump is to remove water from basements. This is particularly important in areas where groundwater levels are high or where heavy rainfall can lead to flooding. A sump pump is typically installed in a pit, or sump basin, located in the lowest part of a basement or crawl space. When water enters this pit, the sump pump activates and pumps the water out and away from the foundation of the house, preventing water accumulation that could lead to structural damage, mold growth, and other issues. While handling wastewater and circulating hot water are important plumbing functions, they are not the primary role of a sump pump. Wastewater management is typically handled by sewage pumps or other outdoor drainage systems, and hot water circulation involves a different set of systems focused on maintaining temperature and flow of water for heating needs. Preventing pipe leaks is a maintenance concern, but it does not directly relate to the function of a sump pump, which is specifically designed to address water infiltration issues in low-lying areas of a 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://sait2ndyrplumbing.examzify.com>

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