

# SAIT 2ND YEAR PLUMBING PRACTICE EXAM (SAMPLE)

## STUDY GUIDE



*Prepare with structure. Pass with confidence*



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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 kind of test can be performed to check for leaks in a plumbing system?**
  - A. Hydraulic pressure test
  - B. Vacuum test
  - C. Hydrostatic test
  - D. Static pressure test
- 2. What is one of the uses of water meters besides metering consumption?**
  - A. Measuring temperature
  - B. Detecting leaks in the system
  - C. Filtration of water
  - D. Pressure regulation
- 3. What is the minimum requirement for an air break in plumbing?**
  - A. Two pipe diameters from a drain
  - B. One pipe diameter or 1 inch from a drain
  - C. 1.5 pipe diameters from the drain
  - D. At least half the spout height
- 4. What is the maximum allowable distance from a fixture to the vent stack?**
  - A. 4 feet
  - B. 8 feet
  - C. 6 feet
  - D. 10 feet
- 5. At what pressure should waterlines be tested?**
  - A. 500kpa
  - B. 700kpa
  - C. 800kpa
  - D. 1000kpa
- 6. How much does superheated water expand compared to its liquid form?**
  - A. 1700 times
  - B. 1000 times
  - C. 1500 times
  - D. 1200 times

- 7. What is the key feature of ABS pipe?**
- A. It is rigid and incredibly heavy.
  - B. It is lightweight, resistant to corrosion, and has a smooth interior surface.
  - C. It can only be used for drainage purposes.
  - D. It is flexible and easy to bend.
- 8. What must a flat vent be equipped with to ensure proper maintenance?**
- A. Traps
  - B. Clean out
  - C. Filters
  - D. Expansion joints
- 9. What is the requirement for installing a meter bypass?**
- A. When the meter is 1" or smaller
  - B. When the meter is 1 1/2" or larger
  - C. When the meter is 2" or larger
  - D. When the meter is more than 3" in diameter
- 10. In a plumbing system, the term "vent" generally refers to what?**
- A. A pipe that allows air into the system
  - B. A pipe that drains water
  - C. A device that regulates pressure
  - D. A water heater component



## **Answers**

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

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## **Explanations**

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## 1. What kind of test can be performed to check for leaks in a plumbing system?

- A. Hydraulic pressure test
- B. Vacuum test
- C. Hydrostatic test**
- D. Static pressure test

The hydrostatic test is an effective method used to check for leaks in a plumbing system. This test involves filling the plumbing system with water and then pressurizing it to a specified level. The system is monitored for a period of time to observe if there are any drops in pressure, which would indicate potential leaks. The use of water, which is incompressible, allows for precise detection of leaks in various components, including pipes, fittings, and joints. Hydrostatic testing is preferred because it can apply a significant amount of pressure to the entire system while keeping it submerged, allowing for thorough inspection. This makes it an essential test during the installation and maintenance phases of plumbing systems. The method is regarded as safe and reliable, and it is often used in both residential and commercial plumbing applications to ensure the integrity of the system before it becomes operational.

## 2. What is one of the uses of water meters besides metering consumption?

- A. Measuring temperature
- B. Detecting leaks in the system**
- C. Filtration of water
- D. Pressure regulation

Water meters serve several important functions beyond merely measuring water consumption. One significant use is in detecting leaks within the plumbing system. When water is consumed normally, the flow through the meter remains relatively steady and predictable. However, if there is a leak, the water meter will register flow that exceeds what is typically expected based on usage patterns. This irregularity can help identify potential leaks, allowing for timely repairs, which can save water and prevent damage to property. The other options, while related to water management, do not accurately reflect the primary additional use of water meters. Measuring temperature is not a function of standard water meters, nor do they filter water or regulate pressure. Each of these functions typically requires specific equipment designed for those purposes, rather than the fundamental operation of a standard water meter.

## 3. What is the minimum requirement for an air break in plumbing?

- A. Two pipe diameters from a drain
- B. One pipe diameter or 1 inch from a drain**
- C. 1.5 pipe diameters from the drain
- D. At least half the spout height

The minimum requirement for an air break in plumbing is established to prevent backflow and contamination of potable water supplies. The correct choice specifies that the air break must be one pipe diameter or at least 1 inch from a drain. This separation creates a physical barrier that prevents any potential siphoning action from occurring, thus ensuring that wastewater does not enter the drinking water supply. By adhering to this standard, it helps maintain the integrity of plumbing systems and protects public health. The mention of "one pipe diameter" means that the distance is proportional to the size of the pipe, ensuring adequacy across various pipe sizes. The additional stipulation that it must be at least 1 inch ensures a baseline safety margin, particularly in smaller diameter systems. The other options would either not provide a sufficient air gap or suggest a measurement that could lead to a risk of contamination, which is why they do not meet the established requirements for an effective air break. The correct standard reflects the best practices in plumbing to safeguard water quality.

#### 4. What is the maximum allowable distance from a fixture to the vent stack?

- A. 4 feet
- B. 8 feet
- C. 6 feet**
- D. 10 feet

The maximum allowable distance from a fixture to the vent stack is critical in plumbing design to ensure proper drainage and prevent the siphoning of traps, which can lead to the release of sewer gases and odors into the living space. A distance of up to 6 feet is generally accepted as safe for most fixtures. This distance allows air to flow freely into the plumbing system, maintaining the balance of pressure necessary for proper drainage. If the distance exceeds this limit, the risk of inadequate venting increases, potentially causing slow drainage and issues with the trap seal. In contrast, shorter distances, such as those listed in the other options, would either not meet the standards in all plumbing configurations or would unnecessarily complicate the layout without providing additional benefit. Therefore, adhering to the 6-foot maximum distance is essential for maintaining a functional and efficient plumbing system.

#### 5. At what pressure should waterlines be tested?

- A. 500kpa
- B. 700kpa**
- C. 800kpa
- D. 1000kpa

The standard pressure for testing waterlines is typically set at 700 kPa. This pressure is used to ensure that the system can handle typical operating conditions while also identifying any potential leaks or weaknesses in the installation. Testing at this pressure helps verify the integrity of the system, ensuring that it can safely hold water under pressure without any failures. By adhering to this standard, plumbers can ensure that the plumbing installations are reliable and meet safety requirements before being put into operation.

#### 6. How much does superheated water expand compared to its liquid form?

- A. 1700 times**
- B. 1000 times
- C. 1500 times
- D. 1200 times

Superheated water can expand about 1700 times compared to its liquid form due to the dramatic changes in density and volume that occur when water transitions from a liquid to a gas phase. When water is heated beyond its boiling point at a given pressure, it becomes superheated steam, and in this state, water molecules move much farther apart from each other compared to their arrangement in the liquid state. This significant increase in volume is a characteristic property of liquids transitioning to gases; in the case of water, it leads to a very large expansion ratio. Understanding this property is crucial in plumbing applications, especially when dealing with heating systems. If water is heated in a confined space (such as in a closed boiler), the pressure increases significantly, and if superheated steam is introduced into the system, it can lead to pressure surges that may damage plumbing fixtures or systems. The knowledge of this characteristic expansion helps plumbers design systems that can handle the pressure generated by steam and avoid potential hazards.

## 7. What is the key feature of ABS pipe?

- A. It is rigid and incredibly heavy.
- B. It is lightweight, resistant to corrosion, and has a smooth interior surface.**
- C. It can only be used for drainage purposes.
- D. It is flexible and easy to bend.

The key feature of ABS (Acrylonitrile Butadiene Styrene) pipe is that it is lightweight, resistant to corrosion, and features a smooth interior surface. This combination of properties makes ABS pipes particularly useful in various plumbing applications. Being lightweight facilitates ease of handling and installation, reducing physical strain on the installers. The resistance to corrosion is critical, as it ensures the pipe maintains its integrity over time, even when exposed to the elements or chemicals, which is important for longevity and reliability in plumbing systems. The smooth interior surface promotes better flow characteristics, reducing the risk of clogs and contributing to efficient drainage by minimizing friction. These characteristics make ABS an excellent choice for drainage, waste, and vent piping systems, although it's worth noting that it is not limited to just drainage applications; it can also be utilized in other plumbing situations.

## 8. What must a flat vent be equipped with to ensure proper maintenance?

- A. Traps
- B. Clean out**
- C. Filters
- D. Expansion joints

A flat vent must be equipped with a cleanout to facilitate proper maintenance. Cleanouts are essential access points in plumbing systems that allow for the removal of blockages and ensure that the venting system remains clear for optimal airflow. Regular maintenance, including the ability to access and clean a flat vent, helps prevent the buildup of debris, which can lead to venting failures or inefficiencies in the system. In plumbing systems, specifically those incorporating flat vents, it's important to have cleanouts installed at strategic locations. This accessibility aids in addressing issues like clogs, ensuring that the vent can perform effectively by allowing for the easy removal of obstructions when necessary. Without cleanouts, maintenance can become challenging, potentially leading to more severe problems that could affect the entire plumbing system.

## 9. What is the requirement for installing a meter bypass?

- A. When the meter is 1" or smaller
- B. When the meter is 1 1/2" or larger**
- C. When the meter is 2" or larger
- D. When the meter is more than 3" in diameter

The requirement for installing a meter bypass is based on the size of the meter. When the meter is 1 1/2" or larger, a bypass is necessary to ensure that water flow can continue uninterrupted during maintenance or repair work. This is particularly important in commercial and industrial applications where larger meters are commonly used, as a larger meter indicates higher flow rates and potentially greater system demand. Having a bypass allows for the meter to be serviced or replaced without shutting down the entire water supply, which is critical for maintaining operational continuity in larger facilities. This requirement helps ensure that there is minimal disruption to service, safeguarding both the water supply and the infrastructure that relies on it. Smaller meters, on the other hand, typically do not require a bypass since the impact of servicing these meters on overall water supply is less significant.

**10. In a plumbing system, the term "vent" generally refers to what?**

**A. A pipe that allows air into the system**

**B. A pipe that drains water**

**C. A device that regulates pressure**

**D. A water heater component**

*In a plumbing system, the term "vent" refers specifically to a type of pipe that allows air into the system. This is crucial because venting helps maintain balanced pressure within the plumbing system, allowing waste and water to flow smoothly without creating vacuum pressure that could hinder drainage. Proper venting prevents issues such as slow drainage or the backflow of sewage gases into the building, ensuring a safe and effective plumbing environment. Vents are typically installed in such a way that they connect to the drainage system but extend above the roofline, allowing odors and gases to escape while drawing in air needed for optimal drainage. This function is fundamental in both residential and commercial plumbing systems to keep everything operating efficiently. Proper ventilation is vital in avoiding plumbing problems and maintaining a healthy air quality within the space.*

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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](mailto: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!

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