

International Residential Code (IRC) Plumbing Practice Test (Sample)

Study Guide



Everything you need from our exam experts!

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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. Which component is allowed to be located outside a building or in areas subject to freezing unless protected?**
 - A. Building drains**
 - B. Vent terminals**
 - C. Piping systems**
 - D. Pressure gauges**

- 2. Which of the following is an unsuitable location for a check or shutoff valve according to plumbing code?**
 - A. Between heating appliances and the tank**
 - B. Between a relief valve and the discharge pipe**
 - C. Before a sewage ejector**
 - D. Between a tank and the main water line**

- 3. What is required for verifying the installation of a watertight shower liner?**
 - A. Visual inspection**
 - B. Water pressure test**
 - C. Flood test**
 - D. Sound test**

- 4. What is the minimum height, in inches, above the flood level rim of the highest fixture served for horizontal vent pipes forming branch vents?**
 - A. 4**
 - B. 5**
 - C. 6**
 - D. 7**

- 5. What is the minimum depth of a shower curb when measured from the top of the curb to the top of the drain?**
 - A. 1 inch**
 - B. 2 inches**
 - C. 3 inches**
 - D. 4 inches**

- 6. What is the minimum sized trap that can be used for the drainage system of a kitchen sink?**
- A. 1 inch**
 - B. 1.5 inches**
 - C. 2 inches**
 - D. 2.5 inches**
- 7. What is the minimum critical level setting for an atmospheric vacuum breaker?**
- A. 2 inches above the highest elevation**
 - B. 4 inches above the flood level rim**
 - C. 6 inches above the highest elevation**
 - D. 8 inches above the flood level rim**
- 8. What is the maximum depth a trench installed parallel to footings can extend below?**
- A. 30 degrees**
 - B. 45 degrees**
 - C. 60 degrees**
 - D. 75 degrees**
- 9. Why are running threads and bands prohibited in drainage systems?**
- A. They cause leaks**
 - B. They can damage pipe fittings**
 - C. They create blockages**
 - D. They can weaken joints**
- 10. A potable water supply system must prevent contamination from which of the following?**
- A. Non-potable liquids**
 - B. Pesticides**
 - C. Pharmaceuticals**
 - D. Heavy metals**

Answers

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

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Explanations

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1. Which component is allowed to be located outside a building or in areas subject to freezing unless protected?

- A. Building drains**
- B. Vent terminals**
- C. Piping systems**
- D. Pressure gauges**

Vent terminals are specifically designed to be protected against the possibility of freezing, and their location outside the building is permissible under the International Residential Code (IRC). These terminals serve the crucial function of allowing the escape of gases from the plumbing drainage system while also helping to maintain an appropriate pressure balance within the system. If vent terminals are installed in areas subject to freezing, they are required to be designed or installed to prevent the accumulation of snow or ice, which could obstruct airflow. This makes them unique among the choices presented since other components, such as building drains, piping systems, and pressure gauges, typically require more substantial protection against freezing conditions to ensure proper functioning and prevent damage. Drains and piping systems can suffer from freeze damage, leading to water backup or system failures. Pressure gauges, essential for monitoring system performance, also require climate control and protection from freezing conditions for accurate operation. Therefore, vent terminals are the only component allowed to be located outside or in freezing areas provided that adequate precautions are taken to protect them. This understanding of their unique properties and requirements reflects compliance with IRC standards.

2. Which of the following is an unsuitable location for a check or shutoff valve according to plumbing code?

- A. Between heating appliances and the tank**
- B. Between a relief valve and the discharge pipe**
- C. Before a sewage ejector**
- D. Between a tank and the main water line**

A check or shutoff valve positioned between a relief valve and its discharge pipe is unsuitable because it can create a hazardous situation. Relief valves are designed to release excess pressure to prevent system failures or explosions. If a shutoff valve is placed in line before this discharge pipe, it could inadvertently trap pressure or water, preventing the relief valve from functioning properly. In the event that there is an increase in pressure, not allowing the relief valve to release could lead to dangerous conditions, including the risk of system failure or physical injury. The other scenarios might involve various considerations but do not have the same potential for creating a dangerous condition. For instance, placing a valve between heating appliances and the tank may manage flow, though it should be done with awareness of the system's risk. Similarly, a valve before a sewage ejector can be functional for maintenance purposes, and the situation between a tank and the main water line, while having its own regulatory considerations, does not carry the immediate risk that is present in the case of a relief valve discharge pipe. Thus, the critical nature of the relief valve function makes option B the only truly unsuitable location.

3. What is required for verifying the installation of a watertight shower liner?

- A. Visual inspection**
- B. Water pressure test**
- C. Flood test**
- D. Sound test**

The correct answer is the flood test, which is an effective method for verifying the installation of a watertight shower liner. This test involves filling the shower pan with water to a specified depth and allowing it to sit for a certain period, usually 24 hours. The purpose of this is to ensure that there are no leaks in the liner, as any failure would result in water escaping over the edges or through the substrate, potentially leading to significant damage and mold growth. This method is crucial for confirming that the entire system operates as designed before the final layer of flooring or finishes is applied. It thoroughly assesses the integrity of the installation, which visual inspections alone might not sufficiently do—since small defects may not be easily visible. Other methods, such as water pressure tests or sound tests, may not provide the same level of assurance for a watertight seal specifically in the context of a shower liner.

4. What is the minimum height, in inches, above the flood level rim of the highest fixture served for horizontal vent pipes forming branch vents?

- A. 4**
- B. 5**
- C. 6**
- D. 7**

The minimum height requirement for horizontal vent pipes forming branch vents is established to ensure that the venting system functions effectively and maintains the proper air pressure within the drainage system. When vent pipes are installed, they must extend above the flood level rim of the highest plumbing fixture they serve by at least six inches. This height is critical because it helps prevent siphonage, which can occur if negative pressure develops in the drainage system. If vent pipes are not positioned adequately above the flood level rim, there is a risk that wastewater could backflow into the vent and potentially cause odors to escape into the living space or disrupt the drainage functions of the fixture. This requirement underscores the importance of maintaining proper air circulation and pressure balance in plumbing systems, ensuring they operate efficiently and safely. Following this code not only helps in compliance with building regulations but also contributes to the longevity and reliability of the plumbing fixtures in the home.

5. What is the minimum depth of a shower curb when measured from the top of the curb to the top of the drain?

- A. 1 inch
- B. 2 inches**
- C. 3 inches
- D. 4 inches

The minimum depth of a shower curb, measured from the top of the curb to the top of the drain, is specified as 2 inches in the International Residential Code (IRC). This requirement ensures effective water containment and prevents water from spilling over into the surrounding bathroom area. The 2-inch height provides a sufficient barrier to keep the shower water contained while also allowing for proper drainage. If the curb were lower than this minimum requirement, it could lead to water leakage out of the shower area, potentially causing water damage and creating safety hazards, such as slip and fall risks, by allowing water to pool outside of the designated shower space. In contrast, higher curb heights can complicate access for users, especially for individuals with mobility challenges, and lower heights may not adequately serve the primary purpose of directing water into the drain, which is why the code establishes a balance with the 2-inch requirement.

6. What is the minimum sized trap that can be used for the drainage system of a kitchen sink?

- A. 1 inch
- B. 1.5 inches**
- C. 2 inches
- D. 2.5 inches

The minimum size trap that can be used for the drainage system of a kitchen sink is 1.5 inches. This specification is supported by the International Residential Code, which outlines the requirements for plumbing systems to ensure adequate drainage performance while preventing issues like clogs or backflow. A trap of this size is deemed sufficient to facilitate the flow of wastewater from a kitchen sink, accommodating the typical discharge from fixtures used for food preparation and dishwashing. Traps are essential for maintaining a seal that prevents sewer gases from entering the home, and sizing plays a crucial role in allowing free drainage while still protecting the sanitary condition of the plumbing system. Utilizing a trap smaller than 1.5 inches could lead to increased resistance to wastewater flow, resulting in frequent clogs and potential system failures. Conversely, larger traps might be used, but the minimum effective size according to code guidelines is 1.5 inches, making it an ideal and functional option for kitchen sink drainage.

7. What is the minimum critical level setting for an atmospheric vacuum breaker?

- A. 2 inches above the highest elevation**
- B. 4 inches above the flood level rim**
- C. 6 inches above the highest elevation**
- D. 8 inches above the flood level rim**

The minimum critical level setting for an atmospheric vacuum breaker is determined by ensuring that it is installed at a height sufficient to protect against back-siphonage and potential cross-contamination of the potable water supply. The specific requirement in this instance is that the atmospheric vacuum breaker must be set at a minimum height of 6 inches above the highest elevation. This distance is critical in maintaining a physical separation between the potential contaminants and the potable water system, effectively preventing backflow. By adhering to this minimum height requirement, the device ensures that any potential siphonic action that could occur will be effectively mitigated, thus maintaining the integrity of the potable water supply. Other height settings provided in the choices either do not meet the minimum requirement set by the plumbing code or provide greater distances that, while potentially safer, exceed the established minimum. This particular regulation is vital in scenarios where the breaker is used in conjunction with fixtures or systems that may experience changes in water pressure, thereby affirming the effectiveness of the installation under typical and expected operational conditions.

8. What is the maximum depth a trench installed parallel to footings can extend below?

- A. 30 degrees**
- B. 45 degrees**
- C. 60 degrees**
- D. 75 degrees**

The maximum depth a trench installed parallel to footings is allowed to extend below is determined by the concept of lateral support and the safety of the structural elements involved. When a trench is dug adjacent to a footing, it is essential to maintain stability and prevent potential soil movement that could undermine the footing or the structure above it. The IRC specifies that the trench should not extend beyond a 45-degree line from the bottom of the footing. This is to ensure that the weight and structural integrity of the footing are not compromised. The 45-degree angle represents a balance between safety and practicality, allowing sufficient depth for drainage or utility installation while maintaining the integrity of the foundation. The other options presenting steeper angles, such as 30 degrees, 60 degrees, and 75 degrees, would extend the trench deeper than the IRC allows and could introduce risks of soil collapse or destabilizing lateral support for the foundation elements. Adhering to the 45-degree guideline helps to ensure safety and compliance with best construction practices as outlined in the IRC.

9. Why are running threads and bands prohibited in drainage systems?

- A. They cause leaks**
- B. They can damage pipe fittings**
- C. They create blockages**
- D. They can weaken joints**

Running threads and bands are prohibited in drainage systems primarily because they can weaken joints. When threads are used, they can lead to a situation where the mechanical strength of the joint is compromised. This is particularly critical in drainage systems where robust connections are necessary to prevent leakage and maintain structural integrity under the varying pressures and conditions of fluid flow. In drainage applications, the connection needs to be strong and reliable to withstand movement, temperature variations, and shifting soil conditions. Weakened joints can lead to failures over time, resulting in leaks, which could cause not only plumbing problems but also potential damage to the building structure or surrounding areas. Other issues such as causing leaks, damaging pipe fittings, or creating blockages are not the main focus of prohibiting running threads and bands in this context. While these concerns can arise from improper installation methods, the direct impact on joint strength is the primary reason for the prohibition. Ensuring that joints are properly made with smooth, unthreaded connections minimizes the risk of failure and promotes a more reliable drainage system overall.

10. A potable water supply system must prevent contamination from which of the following?

- A. Non-potable liquids**
- B. Pesticides**
- C. Pharmaceuticals**
- D. Heavy metals**

The correct choice regarding what a potable water supply system must prevent contamination from is non-potable liquids. This stems from the fundamental principles of maintaining water quality and safety in potable water systems. Non-potable liquids are substances that are not safe for human consumption and can introduce harmful pathogens, chemicals, or other contaminants into the water supply. If non-potable liquids were to mix with the potable water supply, they could lead to serious health risks. In the context of the International Residential Code (IRC), the plumbing regulations emphasize the importance of preventing any backflow or cross-connection between potable and non-potable systems. Measures such as backflow preventers and air gaps are commonly employed to ensure that the integrity of the potable water supply is maintained. While pesticides, pharmaceuticals, and heavy metals are also potential contaminants that can affect water quality, the specific focus of the question is on the category of non-potable liquids, as they directly represent sources that could contaminate an otherwise safe drinking water system. Therefore, the primary concern of potable water systems is to effectively isolate and protect against these non-potable sources to ensure public health and safety.

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://internationalresidentialcode-plumbing.examzify.com>

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

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