

# Oregon Class 5 Pressure Piping Mechanic License 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

- 1. In what situations is a double block and bleed system recommended?**
  - A. When isolating non-hazardous fluids**
  - B. When isolating hazardous fluids and ensuring safety during maintenance**
  - C. When conducting structural inspections**
  - D. When monitoring system performance**
- 2. What is the maximum pressure allowed for a Class 150 flange?**
  - A. 150 PSI**
  - B. 285 PSI at ambient temperature**
  - C. 450 PSI**
  - D. 600 PSI**
- 3. Which factors are evaluated to determine the suitability of a pipe?**
  - A. Only the pipe's color and size**
  - B. Pressure ratings, material properties, and applicable codes**
  - C. Cost and availability in the market**
  - D. Brand and manufacturing origin**
- 4. What is the main function of pipe insulation in a chilled water system?**
  - A. To enhance aesthetics of the piping**
  - B. To prevent condensation and minimize heat gain**
  - C. To increase water flow through the pipes**
  - D. To support pipe weight during installation**
- 5. Define "ductile materials" in the context of pressure piping.**
  - A. Materials that can withstand extreme temperatures**
  - B. Materials that are easily molded and shaped**
  - C. Materials that can undergo significant plastic deformation before failure**
  - D. Materials that are only used for low-pressure applications**

- 6. Which of the following is considered a "place of public assembly"?**
- A. A shopping mall**
  - B. A college campus**
  - C. A private residence**
  - D. A retail store**
- 7. What type of testing is usually performed to verify the integrity of pressure pipes?**
- A. Ultrasonic testing**
  - B. Hydrostatic testing**
  - C. Visual inspection**
  - D. Electromagnetic testing**
- 8. What is essential to know when selecting a pipe material for a specific fluid?**
- A. The manufacturer's logo**
  - B. The color of the pipe**
  - C. Compatibility with the fluid being transported**
  - D. The pipe length only**
- 9. What is the included angle of a standard center punch?**
- A. 30 degrees**
  - B. 45 degrees**
  - C. 60 degrees**
  - D. 90 degrees**
- 10. What role does a flow meter play in a pressure piping system?**
- A. It regulates the pressure of the system**
  - B. It measures the flow rate of liquids or gases within the system**
  - C. It cleans the system from impurities**
  - D. It allows for pressure equalization**



## **Answers**

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

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## **Explanations**

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**1. In what situations is a double block and bleed system recommended?**

**A. When isolating non-hazardous fluids**

**B. When isolating hazardous fluids and ensuring safety during maintenance**

**C. When conducting structural inspections**

**D. When monitoring system performance**

A double block and bleed system is essential when isolating hazardous fluids and ensuring safety during maintenance. This system involves two valves with a bleed valve in between, providing a secure method to isolate potentially harmful substances. In the event of a failure in one of the valves, the second acts as a safeguard, preventing the ingress of hazardous fluids into areas where workers may be present. This enhanced safety feature is crucial during maintenance activities, as it minimizes the risk of exposure to harmful chemicals, vapors, or pressurized liquids, thereby ensuring a safer working environment. In contrast, isolating non-hazardous fluids does not typically require the same level of safety precautions, making a double block and bleed system unnecessary in those scenarios. Structural inspections focus on the integrity of physical structures rather than fluid isolation, and monitoring system performance does not involve isolating fluids at all. Thus, the focus on safety for maintenance tasks related to hazardous fluids makes the recommendation for a double block and bleed system appropriate in this context.

**2. What is the maximum pressure allowed for a Class 150 flange?**

**A. 150 PSI**

**B. 285 PSI at ambient temperature**

**C. 450 PSI**

**D. 600 PSI**

The maximum pressure allowed for a Class 150 flange is specifically designated at 285 PSI at ambient temperature. This classification is part of the flange pressure rating system established by standards like ASME B16.5, which provide guidelines on the pressure and temperature ratings for various types of piping components. In terms of why 285 PSI is the correct figure, it reflects not only the design and materials used in the flange construction but also accounts for factors such as temperature. As temperature increases, the allowable pressure rating often decreases, which is a crucial consideration in applications involving thermal fluctuations. The 285 PSI rating for Class 150 flanges is tailored to ensure safety and integrity in operations that are typical for this class of piping system. Other options suggested different maximum pressure ratings that do not align with the established standards for Class 150 flanges. These values do not correspond with industry practices, reinforcing the importance of referencing accurate pressure classifications when working with piping systems. Understanding these classifications is vital for ensuring compliance with safety regulations and maintaining the reliability of pressure piping systems.

**3. Which factors are evaluated to determine the suitability of a pipe?**

- A. Only the pipe's color and size**
- B. Pressure ratings, material properties, and applicable codes**
- C. Cost and availability in the market**
- D. Brand and manufacturing origin**

Determining the suitability of a pipe involves assessing its pressure ratings, material properties, and applicable codes. Pressure ratings are crucial as they indicate the maximum pressure the pipe can withstand without failing, which is essential for ensuring safety and reliability in pressure piping systems. Material properties, such as tensile strength, corrosion resistance, and thermal stability, help assess how well the pipe will perform under various conditions, including temperature fluctuations and exposure to chemicals. Applicable codes refer to the regulations and standards set by governing bodies and industry organizations that dictate how piping systems should be designed and installed. Ensuring compliance with these codes is vital for safety, legal, and operational considerations, as they establish minimum requirements for performance and safety. While factors like cost, availability, brand, and manufacturing origin may influence purchasing decisions, they do not directly contribute to the technical suitability of the pipe for specific applications. Focusing on the technical specifications—pressure ratings, material properties, and compliance with applicable codes—ensures that the pipe will function effectively and safely in its intended use.

**4. What is the main function of pipe insulation in a chilled water system?**

- A. To enhance aesthetics of the piping**
- B. To prevent condensation and minimize heat gain**
- C. To increase water flow through the pipes**
- D. To support pipe weight during installation**

The primary function of pipe insulation in a chilled water system is to prevent condensation and minimize heat gain. Insulation serves to maintain the temperature of the chilled water as it moves through the piping, reducing the risk of condensation forming on the exterior of the pipes due to temperature differences between the chilled water and the warmer ambient air. By minimizing heat gain, insulation helps to maintain energy efficiency and ensures that the chilled water remains effective in cooling applications. The other options, while they may have some relevance, do not address the main purpose of insulation in this context. For example, while aesthetics may come into consideration in some applications, it is not a key function of insulation in a chilled water system. Similarly, although supporting the weight of the pipes during installation is important, this is typically more related to the pipe hangers or supports rather than the insulation itself. Lastly, insulation does not increase water flow through pipes - that function is determined by the design and diameter of the piping system. Thus, the critical role of insulation lies in its ability to prevent condensation and minimize heat gain, ensuring the efficiency and performance of the chilled water system.

5. Define "ductile materials" in the context of pressure piping.
- A. Materials that can withstand extreme temperatures
  - B. Materials that are easily molded and shaped
  - C. Materials that can undergo significant plastic deformation before failure**
  - D. Materials that are only used for low-pressure applications

Ductile materials are characterized by their ability to undergo significant plastic deformation before experiencing failure. This means they can stretch, bend, or otherwise change shape under stress without breaking, making them particularly valuable in pressure piping systems where flexibility and resilience are required. For example, in scenarios involving sudden increases in pressure or changes in temperature, ductile materials can absorb stress and deform instead of fracturing, ensuring the integrity of the piping system. This property is especially important in environments where dynamic loads or thermal expansion and contraction occur, as it allows the material to accommodate these changes without catastrophic failure. By being ductile, these materials help prevent leaks and maintain the reliability of the pressure piping system under various operational conditions.

6. Which of the following is considered a "place of public assembly"?
- A. A shopping mall
  - B. A college campus**
  - C. A private residence
  - D. A retail store

A college campus is considered a "place of public assembly" because it is an area designed to accommodate large groups of people, often hosting gatherings, events, classes, and other activities that require assembly for educational or recreational purposes. These campuses typically have facilities such as auditoriums, lecture halls, and community spaces that facilitate the congregation of students, staff, and visitors, making it a central location for public engagement and collaboration. In contrast, a shopping mall, while it does attract many visitors, is primarily a commercial space unlike the educational focus of a college campus. Similarly, a private residence is not classified as a public assembly area due to its restricted access and intended use as a living space. A retail store, while open to the public, serves a specific commercial purpose rather than the broader social or community functions associated with public assembly venues like college campuses.

**7. What type of testing is usually performed to verify the integrity of pressure pipes?**

- A. Ultrasonic testing**
- B. Hydrostatic testing**
- C. Visual inspection**
- D. Electromagnetic testing**

Hydrostatic testing is the preferred method for verifying the integrity of pressure pipes because it involves filling the piping system with water, and then pressurizing it to a predetermined level above its normal operating pressure. This process enables the detection of any leaks or weaknesses present in the pipe material or joints. It is highly effective as water, being incompressible, allows for precise monitoring of the pressure levels over time to identify any drop in pressure that would indicate a leak. In addition to revealing leaks, hydrostatic testing ensures that the pressure piping system can withstand the forces of the fluids it will transport under normal operation, thereby confirming its operational safety. This testing method is widely accepted and used in the industry for ensuring the performance and safety of pressurized systems.

**8. What is essential to know when selecting a pipe material for a specific fluid?**

- A. The manufacturer's logo**
- B. The color of the pipe**
- C. Compatibility with the fluid being transported**
- D. The pipe length only**

When selecting a pipe material for a specific fluid, compatibility with the fluid being transported is crucial. Different fluids can have various chemical properties that may react adversely with certain materials. For instance, corrosive fluids can degrade materials like certain metals or plastics, leading to leaks, failures, and safety hazards. Understanding the chemical composition, temperature, pressure, and other physical characteristics of the fluid helps ensure that the selected pipe material will maintain its integrity throughout its operational life. Other factors, such as the manufacturer's logo or the color of the pipe, may provide some information about quality or intended use but do not directly impact the compatibility of the material with the fluid. Similarly, considering only the pipe length is insufficient since length alone does not address whether the material will perform safely and effectively with the specific fluid being carried.

**9. What is the included angle of a standard center punch?**

- A. 30 degrees
- B. 45 degrees
- C. 60 degrees**
- D. 90 degrees

The included angle of a standard center punch is typically set at 60 degrees. This angle is designed to create a conical point that is effective for indenting surfaces to guide a drill bit accurately. The 60-degree point ensures that when the punch strikes the material, it produces a small, precise indentation that minimizes slipping and helps align the drill bit, which is critical for achieving accuracy in machining and metalworking tasks. Selecting a center punch with a 60-degree included angle strikes a balance that is widely accepted in the industry, making it the standard for various applications where precise marking and drilling are required.

**10. What role does a flow meter play in a pressure piping system?**

- A. It regulates the pressure of the system
- B. It measures the flow rate of liquids or gases within the system**
- C. It cleans the system from impurities
- D. It allows for pressure equalization

A flow meter is an essential instrument in a pressure piping system as it quantifies the flow rate of liquids or gases. This measurement is crucial for various reasons, including ensuring efficient operation, monitoring system performance, and ensuring that the system is functioning within its designed parameters. By providing real-time data on the flow rate, a flow meter helps operators make informed decisions about the system's operation, troubleshoot issues, and optimize energy consumption. The ability to measure flow rate directly impacts system design and safety, as well as compliance with regulatory standards and efficiency requirements. Understanding the flow rate is vital for maintaining the integrity of the piping system and ensuring that it operates effectively without exceeding the limitations of the materials or components involved.



## 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://orclass5pressurepipingsmech.examzify.com>**

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