

New Mexico State License Pipe Fitter 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. Acetylene is an unstable compound and should not be compressed _____ psi when in free state?
 - A. 25
 - B. 50
 - C. 15
 - D. 30

2. For bolting a 12 inch, 600 class flange joint, what size and how many studs are required?
 - A. 1 inch, 16
 - B. 1-1/4 inch, 20
 - C. 1-1/2 inch, 18
 - D. 1 inch, 24

3. In what scenario would you prefer using copper brazed steel tubes?
 - A. For high-temperature applications
 - B. In corrosive environments
 - C. For structural support
 - D. For high-pressure systems

4. Is Schedule 80 plastic pipe recommended for threading?
 - A. Yes, it's recommended
 - B. No, it is not recommended
 - C. Only for certain types
 - D. It varies by manufacturer

5. Which shade # lens gives the most protection for welding: 8, 6, 4, or 10?
 - A. 8
 - B. 6
 - C. 4
 - D. 10

- 6. What is the consequence of using cast iron flanges rated for incorrect pressures?**
- A. They can crack or fail**
 - B. They will rust prematurely**
 - C. They will be too heavy to install**
 - D. They will not seal properly**
- 7. What is a popular type of clothing for welders that sheds sparks well and is fairly inexpensive?**
- A. Cotton denims**
 - B. Leather jackets**
 - C. Polyester suits**
 - D. Wool garments**
- 8. To butt weld two pipes of equal thickness, the thicker pipe must be tapered to match the thinner pipe. The length of taper to offset thickness ratio is?**
- A. 2 to 1**
 - B. 3 to 1**
 - C. 5 to 1**
 - D. 4 to 1**
- 9. What is a common use of threaded pipe?**
- A. Patching leaks**
 - B. Joining sections**
 - C. Creating flexible connections**
 - D. Enhancing insulation**
- 10. Is it true that a mechanical tube is designed to carry fluids under pressure?**
- A. True**
 - B. False**
 - C. Only in specific conditions**
 - D. Only in vertical applications**

Answers

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

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Explanations

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1. Acetylene is an unstable compound and should not be compressed _____ psi when in free state?

- A. 25
- B. 50
- C. 15**
- D. 30

Acetylene is indeed an unstable compound, particularly under pressure. When compressed, its tendency to decompose increases, which can lead to dangerous reactions. The correct answer indicates that acetylene should not be compressed beyond 15 psi when in its free state. This limit is established to ensure safety and prevent the risk of explosive reactions that can occur at higher pressures due to the instability of acetylene. At pressures exceeding this threshold, the risk of third-party detonation or hazardous decomposition significantly escalates, making it crucial to adhere to these guidelines in pipe fitting and gas handling practices. Therefore, understanding the safe handling limit of acetylene is essential for anyone working with this gas in piping systems.

2. For bolting a 12 inch, 600 class flange joint, what size and how many studs are required?

- A. 1 inch, 16
- B. 1-1/4 inch, 20**
- C. 1-1/2 inch, 18
- D. 1 inch, 24

When determining the appropriate size and quantity of studs required for bolting a 12-inch, 600 class flange joint, it's important to refer to standard bolting practices and industry specifications. For a 600 class flange, which has a specific pressure rating, the stud size typically needs to be substantial enough to withstand the pressure and ensure a secure seal. In this case, a 1-1/4 inch diameter for the studs is appropriate, as it provides sufficient strength and durability for the application. Furthermore, the quantity of 20 studs is determined by the number of bolt holes typically found in a flange of this size and class. Flanges are designed to distribute the load evenly across all bolts, and having 20 studs allows for that distribution in a 12-inch, 600 class flange joint, facilitating proper sealing and performance under pressure. In summary, the size of 1-1/4 inch and quantity of 20 studs corresponds to established engineering practices for ensuring the integrity of high-pressure flange connections.

3. In what scenario would you prefer using copper brazed steel tubes?

- A. For high-temperature applications**
- B. In corrosive environments**
- C. For structural support**
- D. For high-pressure systems**

Using copper brazed steel tubes is particularly advantageous for high-temperature applications due to their ability to withstand elevated temperatures without losing structural integrity or experiencing significant thermal expansion. Copper brazing forms a strong joint between the steel and the copper, creating a durable connection that can handle thermal stresses effectively. In high-temperature conditions, materials can often undergo changes that impact their performance. The combination of copper and steel provides excellent thermal conductivity and resistance to oxidation, making them suitable for situations where heat management is critical. Additionally, the brazed joints maintain stability under thermal fluctuation, ensuring that the system remains intact and efficient. While other options like corrosive environments or high-pressure systems present their own unique challenges that may require different materials or specific protections, the primary scenario where copper brazed steel tubes excel is indeed high-temperature applications, enabling reliable performance in demanding conditions.

4. Is Schedule 80 plastic pipe recommended for threading?

- A. Yes, it's recommended**
- B. No, it is not recommended**
- C. Only for certain types**
- D. It varies by manufacturer**

Schedule 80 plastic pipe is not typically recommended for threading. This type of pipe is designed for applications where increased pressure resistance is required, making it thicker than Schedule 40. However, its construction and material do not lend themselves well to being threaded. Most recommendations favor solvent welding instead of threading with plastic pipe, as threading can compromise the integrity of the material, leading to leaks or failures in the piping system. Solvent welding creates a permanent bond that is more effective for maintaining the pressure and integrity of the piping joint. When working with plastic pipes, especially those categorized as Schedule 80, following industry standards for joint connections is essential to ensure reliability and safety in the system. Therefore, the consensus is that Schedule 80 plastic pipe should not be threaded, preferring other methods of joining such as adhesive or fittings designed for that purpose.

5. Which shade # lens gives the most protection for welding: 8, 6, 4, or 10?

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

When it comes to welding, the selection of lens shade is critical for protecting the eyes from intense light and harmful radiation. The shade numbers correspond to the darkness of the lens, with higher numbers indicating darker lenses that provide greater protection against UV and infrared radiation, as well as the bright light emitted during welding. A shade #10 lens is considered to provide the most protection among the options listed. This higher shade level is appropriate for the most intense types of welding processes, such as those involving high currents or when working with materials that produce more intense light. It effectively reduces glare and shields the welder's eyes from harmful exposure. In contrast, lower shade numbers like #8, #6, or #4 allow more light to pass through and are typically used for lighter welding operations where less protection is necessary. These shades may not adequately protect the welder's eyes during activities that produce a more powerful light output, making #10 the safest and most effective choice for maximum eye protection.

6. What is the consequence of using cast iron flanges rated for incorrect pressures?

- A. They can crack or fail**
- B. They will rust prematurely**
- C. They will be too heavy to install**
- D. They will not seal properly**

Using cast iron flanges rated for incorrect pressures can lead to cracking or failure due to material stress. Cast iron is a brittle material, meaning it does not handle stress well compared to ductile materials. If the pressure exerted exceeds what the flange is rated for, it can result in structural failure. This may manifest as cracks propagating through the material or even catastrophic failure under extreme conditions, which can jeopardize the entire piping system and lead to leaks, loss of containment, or even safety hazards in some scenarios. Proper matching of flange ratings with the expected service pressure is crucial for maintaining system integrity and safety. The other options, while potentially relevant under different circumstances, do not directly stem from the issue of using incorrectly rated pressures. For instance, rust and sealing issues relate more to the material characteristics and installation rather than pressurization ratings. Additionally, weight concerns do not typically influence the decision-making regarding pressure ratings in the selection of pipe fittings.

7. What is a popular type of clothing for welders that sheds sparks well and is fairly inexpensive?

- A. Cotton denims**
- B. Leather jackets**
- C. Polyester suits**
- D. Wool garments**

Cotton denims are a popular choice for welders primarily due to their durability and cost-effectiveness. Denim made from cotton provides a reliable barrier against sparks and heat, making it suitable for environments where welding operations are taking place. The tightly woven fabric helps prevent sparks from easily penetrating through to the skin, which is essential for safety in welding tasks. Moreover, cotton denim is relatively inexpensive compared to other protective wear options, allowing welders to maintain a balance between safety and cost. While other materials like leather offer additional protection, they often come at a higher price point. Similarly, polyester suits and wool garments do not provide the same level of spark resistance as cotton denim. Polyester can melt when exposed to high heat, and while wool has some heat-resisting properties, it is not as commonly used for welding attire. This combination of affordability, durability, and spark protection makes cotton denims a favored choice among welders.

8. To butt weld two pipes of equal thickness, the thicker pipe must be tapered to match the thinner pipe. The length of taper to offset thickness ratio is?

- A. 2 to 1**
- B. 3 to 1**
- C. 5 to 1**
- D. 4 to 1**

When joining two pipes of equal thickness through butt welding, achieving a proper fit is essential for maintaining structural integrity and ensuring a quality weld. To facilitate this, the thicker pipe must be tapered to match the thinner pipe effectively. The taper length is a critical factor in determining how the thickness can be offset in the welding process. The correct answer reflects a taper length to offset thickness ratio of 4 to 1. This means that for every unit of thickness that needs to be reduced, the taper should extend four units in length along the pipe surface. This ratio provides a gradual transition between the thicker and thinner material, which helps prevent issues such as stress concentrations at the weld joint. A proper taper not only aids in achieving a stronger weld but also helps minimize potential defects that can arise from improper alignment or excessive geometry changes. Understanding the 4 to 1 ratio is vital for pipe fitters and welders alike, as it ensures that the welding process is performed in a way that promotes durability and reliability in the finished joint. The taper length allows for a smoother flow of weld material and better penetration, which directly impacts the overall success of the welding process.

9. What is a common use of threaded pipe?

- A. Patching leaks
- B. Joining sections**
- C. Creating flexible connections
- D. Enhancing insulation

Threaded pipe is commonly used for joining sections because the threads create a tight seal that allows multiple lengths of pipe to be connected securely. This threaded connection facilitates both the assembly and disassembly of piping systems, making it practical for installation and maintenance. Threaded joints are particularly advantageous in environments where a strong, leak-proof connection is needed, as they can handle pressure and resist movement caused by thermal expansion or vibration. In contrast, the other uses mentioned do not typically involve threaded pipe. Patching leaks is usually done with sealants or clamps rather than threading. Creating flexible connections is typically achieved through the use of flexible hoses or expansion joints. Enhancing insulation doesn't apply directly to threaded pipe, as insulation materials are usually applied outside the pipe rather than resulting from the threading itself. Therefore, the function of joining sections distinctly characterizes the utility of threaded pipe in plumbing and piping systems.

10. Is it true that a mechanical tube is designed to carry fluids under pressure?

- A. True
- B. False**
- C. Only in specific conditions
- D. Only in vertical applications

The assertion regarding a mechanical tube being designed to carry fluids under pressure is indeed more accurate if considered true. Mechanical tubes, particularly those used in piping systems, are engineered to handle various pressures and are specifically designed for fluid transport. These tubes can be made from materials that provide structural integrity and resistance to pressure, which is essential in applications such as plumbing, HVAC systems, and industrial processes. The focus on the mechanical tube's design reflects its intended use in many applications where it must effectively contain and transport liquids or gases. Therefore, stating that it is false undermines the fundamental purpose of mechanical tubes within these systems. Understanding the material properties and the engineering principles that guide the design of tubes aids in recognizing their role in safely managing pressurized fluids in diverse applications.

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://nmstatepipefitter.examzify.com>

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

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