

# Army Electrical Explosives Safety (Ammo-28) 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 of the following is a critical factor in assessing a hazardous classified location?**
  - A. Weather conditions**
  - B. Type of ignition source**
  - C. Distance from personnel**
  - D. Voltage levels**
  
- 2. Why are regular safety drills important in explosive safety?**
  - A. To satisfy regulatory requirements**
  - B. To ensure personnel are prepared for emergencies**
  - C. To keep equipment operational**
  - D. To train on new technology**
  
- 3. Which color is typically used to signify a warning for electrical equipment in explosive areas?**
  - A. Red**
  - B. Green**
  - C. Yellow**
  - D. Blue**
  
- 4. Which component is essential for a complete Lightning Protection System?**
  - A. Air terminal**
  - B. Surge protector**
  - C. Conventional metal roof**
  - D. Grounding rods**
  
- 5. What is the maximum allowable resistance for grounding systems?**
  - A. 15 ohms or less**
  - B. 20 ohms or less**
  - C. 25 ohms or less**
  - D. 30 ohms or less**

- 6. What is one of the hazards posed by electromagnetic radiation?**
- A. Providing warmth to physical spaces**
  - B. Generating extreme heat in the human body**
  - C. Supplying energy to electronic devices**
  - D. Enhancing communication signals**
- 7. When placing test leads on ground rod S and air terminal N during a bonding resistance test, which three bonds are NOT being tested?**
- A. A, B, C**
  - B. C, D, E**
  - C. B, H, P**
  - D. D, F, G**
- 8. In electrical explosives safety, what does the term 'intrinsic safety' refer to?**
- A. Use of high voltage equipment**
  - B. Equipment design that reduces energy to prevent ignition of explosive atmospheres**
  - C. Designing equipment with no moving parts**
  - D. Only using mechanical protections for safety**
- 9. Why is periodic testing of electrical systems important in explosive areas?**
- A. It helps to upgrade outdated systems**
  - B. It provides data for cost analysis**
  - C. It ensures safe and correct operation**
  - D. It is a regulatory requirement only**
- 10. What action should be taken if an electrical component shows signs of overheating?**
- A. Continue to monitor it**
  - B. Disconnect it immediately and have it inspected**
  - C. Reduce the power supply slightly**
  - D. Cool it down with water**

## Answers

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

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## **Explanations**

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**1. Which of the following is a critical factor in assessing a hazardous classified location?**

- A. Weather conditions**
- B. Type of ignition source**
- C. Distance from personnel**
- D. Voltage levels**

Assessing a hazardous classified location requires a comprehensive understanding of various factors that could contribute to the likelihood of igniting an explosion or fire. The type of ignition source is critical because it directly relates to the potential for initiating a hazardous situation. Different ignition sources, such as open flames, electrical sparks, or hot surfaces, have varying capacities to ignite combustible materials or vapors present in the environment. Understanding the specific ignition sources that may be present in a given location helps ensure that adequate safety measures are in place. For instance, if electrical equipment is being used in an area where flammable gases are present, it is essential to use explosion-proof fixtures or equipment that minimizes the risk of ignition. This focus on ignition sources is cornerstone to the safety protocols in hazardous locations, aligning with national safety standards and guidelines. Although other factors like weather conditions, distance from personnel, and voltage levels play roles in the overall safety context, they are not as directly related to the immediate risk of ignition as the type of ignition source. Hence, in the context of hazardous classified locations, the type of ignition source stands out as the decisive element in evaluating potential hazards.

**2. Why are regular safety drills important in explosive safety?**

- A. To satisfy regulatory requirements**
- B. To ensure personnel are prepared for emergencies**
- C. To keep equipment operational**
- D. To train on new technology**

Regular safety drills are essential in explosive safety primarily because they ensure personnel are prepared for emergencies. Such drills provide valuable training that allows individuals to respond swiftly and effectively in critical situations, minimizing the risk of injuries or accidents associated with the handling of explosives. During these drills, personnel become familiar with emergency procedures, understand their roles, and improve their coordination with team members. This preparation can make a significant difference in real-life scenarios where quick thinking and practiced responses can help avert disasters or mitigate their consequences. The importance of being prepared cannot be overstated, especially in environments where explosives are present, as even small mistakes can lead to catastrophic results. Drills reinforce safety protocols, instill confidence, and promote a culture of safety among all personnel involved, ensuring that everyone knows how to act in a crisis.

**3. Which color is typically used to signify a warning for electrical equipment in explosive areas?**

- A. Red**
- B. Green**
- C. Yellow**
- D. Blue**

The color typically used to signify a warning for electrical equipment in explosive areas is yellow. Yellow is universally recognized as a cautionary color, alerting personnel to the potential presence of hazards. In explosive environments, it is crucial to identify areas that pose risks due to electrical sparks or equipment failures which could lead to ignition of flammable materials. Yellow serves as a visual cue, promoting safety awareness and encouraging the adherence to safety protocols when working near electrical equipment. This color highlights caution while ensuring that anyone entering the area remains mindful of possible dangers associated with electrical systems, thereby enhancing overall safety in workplaces where explosives are present.

**4. Which component is essential for a complete Lightning Protection System?**

- A. Air terminal**
- B. Surge protector**
- C. Conventional metal roof**
- D. Grounding rods**

A Lightning Protection System is designed to safeguard structures from the impacts of lightning strikes, and one of its essential components is the air terminal. An air terminal, commonly known as a lightning rod, is strategically placed at the highest point of a structure. Its primary function is to intercept lightning strikes, providing a safe pathway for the electrical discharge to travel down to the ground. By directing the lightning current safely away from the building and into the ground system, the air terminal helps prevent damage to the structure and reduces the risk of fire or other secondary effects caused by electrical surges. A well-installed air terminal is crucial for the overall effectiveness of the lightning protection strategy, as it effectively captures the electrifying force of a lightning strike and ensures the safety of both the building and its occupants. The effectiveness of a complete Lightning Protection System also relies on other components, such as surge protectors that mitigate electrical surges or grounding rods that help dissipate the lightning strike into the earth, but without an air terminal, the system cannot function as intended. This highlights why the air terminal is a fundamental element in ensuring reliable protection against lightning.

**5. What is the maximum allowable resistance for grounding systems?**

- A. 15 ohms or less**
- B. 20 ohms or less**
- C. 25 ohms or less**
- D. 30 ohms or less**

The correct answer is that the maximum allowable resistance for grounding systems is 25 ohms or less. This standard is essential for ensuring that electrical grounding systems are effective in dissipating fault currents safely into the ground. By maintaining a resistance level of 25 ohms or less, the system can minimize the risk of electrical shock and equipment damage during fault conditions. Grounding systems are crucial for protecting personnel and equipment from electrical hazards, and adhering to this resistance limit helps to ensure that the grounding is adequate to perform its safety functions. Ground resistance impacts how well a grounding system can manage stray voltages and provide effective fault current paths, thus enhancing overall safety in electrical installations related to explosive materials. Additionally, lower resistance values can lead to increased effectiveness in preventing electrical disturbances and ensuring reliable operation of electrical equipment.

**6. What is one of the hazards posed by electromagnetic radiation?**

- A. Providing warmth to physical spaces**
- B. Generating extreme heat in the human body**
- C. Supplying energy to electronic devices**
- D. Enhancing communication signals**

Electromagnetic radiation can pose significant hazards, particularly in terms of generating extreme heat in living tissues, which is why the selected answer is correct. When exposed to high levels of electromagnetic radiation, the energy can be absorbed by the body, leading to an increase in temperature. This phenomenon is particularly concerning in environments where employees are exposed to microwave radiation or certain types of radiofrequency fields. Prolonged exposure can result in thermal damage, which can have serious health implications. In the context of the other options, while electromagnetic radiation does have beneficial uses, such as providing warmth (option A) and supplying energy to electronic devices (option C), these are not hazards associated with radiation in the same way that extreme heating of the human body is. Similarly, enhancing communication signals (option D) is an advantage of electromagnetic radiation but does not represent a hazard. These distinctions clarify why the focus is on the potential danger of heat generation in biological tissues when considering the risks of electromagnetic radiation.

**7. When placing test leads on ground rod S and air terminal N during a bonding resistance test, which three bonds are NOT being tested?**

- A. A, B, C
- B. C, D, E
- C. B, H, P**
- D. D, F, G

The correct choice identifies bonds that are not being tested during the bonding resistance test when placing test leads on the ground rod S and air terminal N. In a bonding resistance test, the focus is on ensuring that the electrical connections within a system are effective and safe. Such tests typically measure the resistive connections between major components involved in grounding and bonding, particularly between ground rods and air terminals. By examining the selected bonds (B, H, P), it becomes clear that these particular connections may not contribute directly to the path of conductivity the test is measuring. This could be because they are either not involved in the connection between the specific components being tested or are part of a different grounding circuit. Therefore, those specific bonds are excluded from the assessment being conducted in this context. This is crucial in electrical safety, as understanding which paths are being evaluated helps to identify and isolate any potential issues that might arise in the system being examined. Understanding these distinctions is vital for ensuring that electrical systems are safe, reliable, and compliant with safety standards. Thus, recognizing which bonds are evaluated and which are not helps to maintain the integrity of testing procedures and overall electrical safety practices.

**8. In electrical explosives safety, what does the term 'intrinsic safety' refer to?**

- A. Use of high voltage equipment
- B. Equipment design that reduces energy to prevent ignition of explosive atmospheres**
- C. Designing equipment with no moving parts
- D. Only using mechanical protections for safety

The term 'intrinsic safety' refers specifically to equipment design that reduces energy levels to a point that prevents the ignition of explosive atmospheres. This principle is fundamentally important in environments where explosives or flammable materials are present. Intrinsic safety allows for safe operation of electrical equipment by ensuring that any potential energy released, whether through electrical sparks or thermal energy, is too low to ignite the hazardous materials in the vicinity. In practical terms, intrinsic safety measures may include the use of barriers and safety circuits that limit the amount of electrical energy that can reach the explosive environment. This is essential in maintaining a safe working environment, minimizing the risks associated with electrical equipment in potentially explosive atmospheres, and ensuring that safety standards are upheld. This understanding of intrinsic safety is critical for personnel working in fields related to explosives and electrical safety, as it guides the proper selection and use of electrical equipment in hazardous locations.

**9. Why is periodic testing of electrical systems important in explosive areas?**

- A. It helps to upgrade outdated systems**
- B. It provides data for cost analysis**
- C. It ensures safe and correct operation**
- D. It is a regulatory requirement only**

Periodic testing of electrical systems in explosive areas is vital because it ensures safe and correct operation. In environments where explosives are present, any failure in the electrical system can lead to catastrophic events, including explosions and loss of life. Regular testing helps identify any potential hazards, such as faulty wiring or malfunctioning components, that could create ignition sources in these sensitive areas. By maintaining a consistent testing schedule, organizations can verify that all systems are functioning correctly and safely, thus minimizing the risk of incidents related to electrical faults. Furthermore, this practice can help maintain compliance with safety regulations and standards, which are especially stringent in explosive environments, further enhancing overall safety.

**10. What action should be taken if an electrical component shows signs of overheating?**

- A. Continue to monitor it**
- B. Disconnect it immediately and have it inspected**
- C. Reduce the power supply slightly**
- D. Cool it down with water**

If an electrical component shows signs of overheating, the appropriate action is to disconnect it immediately and have it inspected. Overheating can indicate potentially serious issues such as short circuits, overloaded circuits, or degraded insulation, all of which can lead to component failure or even fire hazards. By disconnecting the component right away, you minimize the risk of further damage or unsafe conditions, allowing for a thorough inspection to determine the cause of the overheating before any attempts to return the component to service. Continuing to monitor an overheating component does not address the immediate safety threat it poses. Reducing the power supply may temporarily alleviate the symptoms but will not resolve the underlying problem and could still lead to failure. Cooling the component down with water could introduce additional risks, such as creating a conductive path or damaging electrical components, and is generally not an appropriate method to address overheating. Promptly disconnecting the component and seeking professional inspection ensures safety and proper repair.

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

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

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