

Electrical Academy Level 1 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. A sealed lead battery is typically used for which type of power supply in most wired alarm systems?
 - A. Primary
 - B. Secondary
 - C. Tertiary
 - D. Backup

2. According to NFPA 72, what should be done with the door to the sleeping room when testing audible notification levels?
 - A. It should be open
 - B. It should be closed
 - C. It should be ajar
 - D. It should be removed

3. Which organization sets standards for electrical safety in the workplace?
 - A. ANSI
 - B. OSHA
 - C. IEEE
 - D. NEMA

4. The "model cities" project reported that what percentage of all false dispatches are caused by what percentage of alarm systems?
 - A. 70%, 30%
 - B. 60%, 40%
 - C. 80%, 20%
 - D. 50%, 50%

5. Which tool is used for pulling wires and cables through a conduit?
 - A. Screwdriver
 - B. Hammer
 - C. Fish tape
 - D. Pliers

6. Which of the following describes a benefit of using collaborative applications in cloud computing?
- A. Increased isolation of data
 - B. Real-time updates and accessibility
 - C. Lower bandwidth requirements
 - D. Limited user interaction
7. What is a common use of a relay in alarm systems?
- A. Signal transmission
 - B. Lighting control
 - C. Signal isolation
 - D. Power conversion
8. Is it true that every control panel requires a means for the customer to submit requests for arming or disarming?
- A. True
 - B. False
 - C. Only for advanced panels
 - D. Not if it has automatic arming
9. Which statement about doorbell intercoms is false?
- A. They are used to communicate with visitors
 - B. They provide video feed of the entrance
 - C. They can control home lighting
 - D. They are used to control temperature inside the home
10. Which of the following describes a function of a hybrid alarm system?
- A. It increases installation time
 - B. Uses resistors for supervision
 - C. Only works with manual switches
 - D. Exclusively collects data

Answers

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

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Explanations

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1. A sealed lead battery is typically used for which type of power supply in most wired alarm systems?

- A. Primary
- B. Secondary
- C. Tertiary
- D. Backup

A sealed lead battery is typically utilized as a secondary power supply in most wired alarm systems. These batteries play a crucial role in providing power during times when the primary power source, usually the electrical grid, is unavailable or interrupted. In alarm systems, reliability and continuity of power are essential for ensuring that the system functions correctly at all times, especially during power outages. This type of battery is advantageous for such applications because it can reliably provide the necessary voltage and current while being maintenance-free. The secondary power system ensures that the alarm can continue to operate independently, alerting users and authorities in case of emergencies, even when other power sources fail. This capability is particularly important in security systems where uptime is critical to protect property and ensure safety.

2. According to NFPA 72, what should be done with the door to the sleeping room when testing audible notification levels?

- A. It should be open
- B. It should be closed
- C. It should be ajar
- D. It should be removed

When testing audible notification levels in accordance with NFPA 72, the door to the sleeping room should be closed. This is important because it simulates the actual conditions that may be present during an emergency situation. A closed door can influence how sound travels within the space, ensuring that the notification devices are tested for effectiveness under realistic scenarios. Testing with the door closed helps to determine whether the audible signals can be clearly heard from within the sleeping area, thereby ensuring the safety of occupants in a potentially hazardous situation. This approach takes into account factors such as sound attenuation and reflected sound, which are vital for assessing the performance of alarm systems in environments where occupants may be asleep.

3. Which organization sets standards for electrical safety in the workplace?

- A. ANSI
- B. OSHA
- C. IEEE
- D. NEMA

OSHA, the Occupational Safety and Health Administration, is responsible for setting and enforcing standards to ensure safe and healthy working conditions for employees. This includes regulations that specifically address electrical safety in the workplace, such as standards on wiring, the use of electrical equipment, and safe practices for working with electrical systems. OSHA's guidelines help prevent accidents and injuries related to electrical hazards, emphasizing the importance of safety protocols in various industries. While the other organizations play significant roles in the electrical field, they do not have the same authority or primary focus on workplace safety as OSHA. ANSI (American National Standards Institute) is involved in developing consensus standards, IEEE (Institute of Electrical and Electronics Engineers) focuses on electrical and electronic engineering standards, and NEMA (National Electrical Manufacturers Association) sets standards primarily related to electrical products and equipment. However, OSHA is the key regulatory body that ensures compliance with safety practices specifically for workers' environments.

4. The "model cities" project reported that what percentage of all false dispatches are caused by what percentage of alarm systems?

- A. 70%, 30%
- B. 60%, 40%
- C. 80%, 20%
- D. 50%, 50%

The statement regarding the "model cities" project highlights a significant finding about alarm systems and their impact on false dispatches. The correct answer indicates that 80% of all false dispatches are attributed to only 20% of alarm systems. This implies a concentrated problem within a small percentage of the total alarm installations, suggesting that these particular systems may be less reliable or have shortcomings that lead to a greater frequency of false alarms. This phenomenon can often occur in various contexts where specific systems, perhaps due to poor installation, outdated technology, or user errors, disproportionately contribute to overall issues. The finding can lead to targeted improvements, indicating that addressing the concerns with this specific minority of alarm systems could significantly reduce the overall rate of false dispatches. Such data could encourage policymakers, manufacturers, and users to focus on enhancing the reliability and effectiveness of these problematic systems, ultimately leading to better safety outcomes and more efficient use of emergency resources.

5. Which tool is used for pulling wires and cables through a conduit?

- A. Screwdriver
- B. Hammer
- C. Fish tape
- D. Pliers

The tool specifically designed for pulling wires and cables through conduits is fish tape. Fish tape consists of a long, flexible, and often flat piece of steel or other materials that can be easily maneuvered within the conduit. Its design allows it to navigate bends and turns, making it ideal for guiding wires into tight spaces. When using fish tape, the user feeds one end into the conduit while the other end remains accessible. After threading the tape through the conduit, you can attach the wire to the fish tape and pull it back through, effectively allowing multiple wires or cables to be pulled simultaneously if needed. Other options like screwdrivers, hammers, and pliers serve very different purposes in electrical work. Screwdrivers are used for fastening and loosening screws, hammers for driving nails or connecting components, and pliers for gripping and cutting wires. None of these tools are suited for the task of pulling cables through conduits, highlighting the unique functionality of fish tape in wire installation.

6. Which of the following describes a benefit of using collaborative applications in cloud computing?

- A. Increased isolation of data
- B. Real-time updates and accessibility
- C. Lower bandwidth requirements
- D. Limited user interaction

The benefit of using collaborative applications in cloud computing prominently features real-time updates and accessibility. This characteristic allows multiple users to work simultaneously on shared projects or documents, regardless of their physical location. It fosters an environment where users can collaborate effectively, instantly seeing each other's changes and contributions. This immediacy significantly enhances productivity and teamwork, making it easier for groups to communicate and organize tasks efficiently. In contrast to this, the other choices highlight attributes that do not align well with the purpose of collaborative applications in the cloud. Increased isolation of data, for instance, runs counter to the collaborative nature of these tools because they are intended to promote sharing and teamwork. Lower bandwidth requirements may be a consideration in other contexts but do not specifically address the collaborative functionality inherent to cloud applications. Lastly, limited user interaction is contrary to the core advantage of these applications, which thrive on active participation and engagement among users.

7. What is a common use of a relay in alarm systems?

- A. Signal transmission
- B. Lighting control
- C. Signal isolation
- D. Power conversion

In alarm systems, a relay commonly serves the purpose of signal isolation. This function is crucial because it enables the alarm system to control high voltage circuits while using lower voltage electronic components. The relay acts as an intermediary that allows a low-power control signal from the alarm system to trigger a higher power signal without direct electrical connection. This isolation helps protect sensitive components within the alarm system from potential damage due to voltage spikes or electrical noise generated by the devices being controlled. For instance, when an alarm is triggered, the relay can open or close a circuit that activates external devices like sirens or lights, ensuring that the high-current draw from these devices does not affect the alarm's processing circuitry. This isolation also contributes to safety and reliability, helping ensure that the alarm system operates effectively without interference from other electrical systems.

8. Is it true that every control panel requires a means for the customer to submit requests for arming or disarming?

- A. True
- B. False
- C. Only for advanced panels
- D. Not if it has automatic arming

A control panel does not universally require a means for the customer to submit requests for arming or disarming. While many modern systems do incorporate user interfaces for this purpose, such as keypads or mobile app access, not every control panel has the same requirement. Control panels can vary widely in functionality and usage depending on the specific application and installation needs. For instance, in certain scenarios, a control panel may be designed specifically for automated operation where manual intervention isn't necessary. These systems may utilize features like automatic arming based on time settings or specific conditions without customer input. Additionally, some basic systems may be set to remain armed, relying on external factors and not requiring active disarm requests from the customer. Thus, while having a means to arm or disarm the system is beneficial for user convenience and control, it is not a stringent requirement across all control panel systems.

9. Which statement about doorbell intercoms is false?

- A. They are used to communicate with visitors
- B. They provide video feed of the entrance
- C. They can control home lighting
- D. They are used to control temperature inside the home

Doorbell intercoms are primarily designed for communication and security purposes, allowing residents to interact with visitors at their door. The first statement is true because they enable verbal communication, which adds a layer of convenience and security. The second statement is also accurate; many modern doorbell intercoms come equipped with video capabilities that allow homeowners to see who is at the door. This video feed enhances the security aspect by providing visual verification of visitors. The third statement is correct as well; some advanced doorbell intercom systems can integrate with smart home technologies, enabling them to control devices such as lighting. For example, pressing the doorbell can trigger specific lighting scenarios to welcome guests or dissuade unwanted visitors. The statement regarding controlling temperature inside the home is misleading and therefore the incorrect choice. Doorbell intercoms typically do not have the functionality to manage heating or cooling systems directly. This role is usually fulfilled by dedicated thermostats or HVAC systems. Thus, the primary focus of doorbell intercoms remains on communication and home security rather than environmental control.

10. Which of the following describes a function of a hybrid alarm system?

- A. It increases installation time
- B. Uses resistors for supervision
- C. Only works with manual switches
- D. Exclusively collects data

A hybrid alarm system combines elements from both conventional and addressable alarm systems. This unique design allows it to leverage the benefits of both types, making it versatile and effective in various applications. One of the key functions of a hybrid alarm system is its method of supervision. By using resistors, the system ensures that the wiring is regularly monitored for faults, such as short circuits or open circuits. When a resistor is placed in series with a device, it allows for consistent checking of the loop's integrity. If the resistance changes due to a fault in the wiring or the device itself, the system can immediately detect that issue and trigger an alarm or fault notification. This ability to supervise the circuit enhances the overall reliability and robustness of the system. This feature is critical in maintaining safety and ensuring a rapid response in the event of an alarm activation or system fault, thus highlighting the importance of resistive supervision in hybrid alarm systems.

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://electricalacadl11.examzify.com>

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

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