Oklahoma Testing – Electronic Access Control (EAC) Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. Under whose supervision can a licensed technician or salesperson work?

A. A licensed technician

B. A contractor

C. A licensed manager

D. A licensed engineer

2. NFP 70 is commonly referred to as what?

A. National Fire Protection Association Code

B. National Electric Code

C. Non-Fire Protection Amendment

D. North Federal Power Act

3. What device is typically used as a for position sensor?

A. Photoelectric sensor

B. Magnetic reed switch

C. Proximity sensor

D. Ultrasonic sensor

4. How is 12mA equivalent to in Amperes?

A. 0.12A

B. 1.2A

C. 12A

D. 120A

5. Why is it important for technicians to know the correct ladder distance from the wall?

A. To enhance visibility during work

B. To reduce the risk of falls

C. To comply with company policies

D. To make the ladder easier to handle

6. What safety feature is essential for power tools used in the workplace?

A. Automatic lubrication

B. Properly fitting guards and safety switches

C. Adjustable speed control

D. Force feedback mechanisms

7. How can a technician prevent damage to an electronic circuit board?

A. By grounding the device

B. By discharging static electricity

C. By using insulated tools

D. By keeping the area free of metal objects

8. What does a blown fuse in a power supply typically indicate?

A. Insufficient voltage supply

B. Excessive current draw

C. Faulty wiring

D. Normal operational failure

9. A technician is permitted to perform work in which areas?

A. Any electrical installation site

B. The alarm industry area(s) for which he is licensed

C. All commercial buildings

D. Any residential property

10. What is a defining characteristic of alternating current?

A. It only flows in one direction

B. It changes polarity 60 times per second

C. It remains at a constant voltage

D. It has no frequency

Answers

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

Explanations

1. Under whose supervision can a licensed technician or salesperson work?

A. A licensed technician

B. A contractor

C. A licensed manager

D. A licensed engineer

The correct answer is C because a licensed manager is responsible for overseeing the operations of a team within electronic access control, including the work of licensed technicians or salespersons. Licensed managers possess the required credentials and authority to supervise and ensure compliance with industry regulations, standards, and company policies. This role often involves managing the activities of the team, providing guidance, and ensuring that all work meets the necessary quality and safety standards. While other positions, such as a contractor or licensed technician, may possess some authority, they do not have the formalized oversight role that a licensed manager does in the context of supervising technicians or salespersons. A licensed engineer typically focuses more on design and technical aspects rather than direct supervision of personnel in an operational setting.

2. NFP 70 is commonly referred to as what?

A. National Fire Protection Association Code

B. National Electric Code

C. Non-Fire Protection Amendment

D. North Federal Power Act

The correct identification of NFP 70 as the National Electric Code is based on its significance in establishing safety standards for electrical installations and systems. Published by the National Fire Protection Association (NFPA), this code is essential for minimizing the risks of electrical hazards and ensuring that electrical installations are performed safely and correctly. The National Electric Code (NEC), or NFP 70, provides guidelines that address various aspects of electrical design, like wiring methods, installation practices, and equipment specifications. This standard is regularly updated to reflect the latest advancements in technology and safety protocols, making it a crucial reference for electrical engineers, contractors, and inspectors. Recognizing NFP 70 as the National Electric Code highlights its role in promoting electrical safety and preventing accidents related to electrical systems in homes, businesses, and industrial settings. The other options do not accurately relate to NFP 70, as they reference different regulations or acts not connected to the electrical safety standards provided in the NEC.

3. What device is typically used as a for position sensor?

A. Photoelectric sensor

B. Magnetic reed switch

C. Proximity sensor

D. Ultrasonic sensor

A magnetic reed switch is commonly utilized as a position sensor due to its ability to detect the presence or absence of a magnetic field. When a magnet approaches the reed switch, the metal contacts inside the switch come together, completing an electrical circuit and signaling that a specific position has been reached. This makes it particularly effective in applications where a straightforward on/off state is required to indicate the opening or closing of doors, windows, or other mechanisms, thereby providing reliable feedback for security systems. In contrast, while other sensors like photoelectric, proximity, and ultrasonic sensors can detect objects or changes in the environment, they often serve different purposes. Photoelectric sensors utilize light to detect objects, proximity sensors detect the presence of an object without direct contact, and ultrasonic sensors utilize sound waves to measure distance, making them less suited for simple position detection than a magnetic reed switch.

4. How is 12mA equivalent to in Amperes?

A. 0.12A

B. 1.2A

C. 12A

D. 120A

To understand the conversion from milliamperes (mA) to amperes (A), it's important to know the relationship between these two units of electrical current. One ampere is equal to 1,000 milliamperes. Therefore, to convert milliamperes to amperes, you divide the number of milliamperes by 1,000. In this case, to find out how 12 mA relates to amperes, you would perform the following calculation: 12 mA ÷ 1,000 = 0.012 A This means that 12 mA is equivalent to 0.012 A. Thus, if we want to express this quantity in terms of whole numbers, moving the decimal point over three places to the left indicates that 0.012 A can also be considered as 12 mA. The correct choice is not 1.2A, which would suggest a misunderstanding of the conversion factor. Each of the other choices involves much greater numbers and thus does not accurately represent the conversion of 12 mA. In summary, 12 mA is correctly converted to 0.012 A, and recognizing this conversion is crucial when working with electronic access control systems and understanding their

5. Why is it important for technicians to know the correct ladder distance from the wall?

A. To enhance visibility during work

B. To reduce the risk of falls

C. To comply with company policies

D. To make the ladder easier to handle

Understanding the correct ladder distance from the wall is fundamentally important for reducing the risk of falls. When technicians set up a ladder, positioning it at the right angle ensures stability. If the base of the ladder is too close to the wall, it can cause the ladder to become unstable and increase the likelihood of tipping over while a technician is climbing or working. On the other hand, if the ladder is set up at the appropriate distance, typically a ratio of 4 to 1 (for every four feet of vertical height, the base should be one foot away from the wall), it provides a safe and stable platform for the technician to work from. This practice not only helps prevent accidents but also promotes safer working conditions, which is essential in high-risk environments like construction, maintenance, or any elevated work scenarios.

6. What safety feature is essential for power tools used in the workplace?

A. Automatic lubrication

B. Properly fitting guards and safety switches

C. Adjustable speed control

D. Force feedback mechanisms

Properly fitting guards and safety switches are critical safety features for power tools used in the workplace because they help prevent accidental injuries. Guards serve as a barrier between the operator and moving parts of the tool, reducing the risk of contact with dangerous components. Safety switches are designed to prevent the tool from starting unintentionally, ensuring that the operator has control over when the tool is in operation. The implementation of these safety features significantly reduces the likelihood of accidents and injuries, which is paramount in maintaining a safe working environment. Ensuring that guards are appropriately fitted to match the specific tool and application also enhances user confidence, allowing workers to focus on their tasks without undue risk. While automatic lubrication can promote tool longevity and performance, it does not directly contribute to safety. Adjustable speed control may enhance the versatility of a tool, and force feedback mechanisms can improve control during operation, but neither of these aspects directly addresses the primary concerns of injury prevention and safety in a workplace setting. Thus, safeguards are essential for making power tools safe for use.

7. How can a technician prevent damage to an electronic circuit board?

A. By grounding the device

B. By discharging static electricity

C. By using insulated tools

D. By keeping the area free of metal objects

Discharging static electricity is crucial for preventing damage to an electronic circuit board. Electronic components, such as integrated circuits and circuit boards, are sensitive to static electricity, which can create electrostatic discharge (ESD) events that may result in irreparable damage to the components. When a technician discharges static electricity by touching a grounded object or using an anti-static wrist strap, they effectively neutralize any built-up charge on their body, reducing the risk of ESD when handling sensitive electronic parts. The other options, while they can contribute to best practices in handling electronic components, do not directly address the specific threat of static electricity. Grounding the device helps to avoid potential differences in voltage and enhance safety, but does not mitigate the technician's static charge. Using insulated tools can protect against accidental short circuits but won't prevent ESD from the technician's body. Keeping the area free of metal objects may help reduce the risk of accidental shorts or interference but is less relevant compared to the immediate practice of discharging static electricity before handling electronic components.

8. What does a blown fuse in a power supply typically indicate?

A. Insufficient voltage supply

B. Excessive current draw

C. Faulty wiring

D. Normal operational failure

A blown fuse in a power supply typically indicates an excessive current draw. Fuses are designed to protect electrical circuits by breaking the connection when the current exceeds a safe threshold. When too much current flows through the circuit, the fuse melts or blows to prevent damage to the components of the system, thus safeguarding against potential overheating or electrical fires. While other issues could contribute to problems in an electrical system, such as insufficient voltage supply, faulty wiring, or typical operational failures, they do not directly cause a fuse to blow in the same way that an excessive current does. A blown fuse is a clear indicator that the system has encountered a condition exceeding its designed limits, which aligns closely with the understanding of current draw within an electrical circuit.

9. A technician is permitted to perform work in which areas?

A. Any electrical installation site

B. The alarm industry area(s) for which he is licensed

C. All commercial buildings

D. Any residential property

The correct answer is based on the requirement that a technician must only perform work within the scope of their professional licensing. Licensing ensures that technicians have met specific educational and training standards required to work safely and effectively in their designated fields. In the context of the alarm industry, this means that a technician can only operate in those areas for which they hold proper certification or licensing. This is essential for compliance with regulatory standards and to ensure that the work performed adheres to safety and quality regulations relevant to specific systems, such as alarm installation and maintenance. This approach helps protect both the technician and the public, as it ensures that only qualified individuals undertake specialized work. In contrast, the other answer choices imply broader scopes of work that would require additional licensing or qualifications not necessarily held by every technician.

10. What is a defining characteristic of alternating current?

A. It only flows in one direction

B. It changes polarity 60 times per second

C. It remains at a constant voltage

D. It has no frequency

A defining characteristic of alternating current (AC) is that it changes polarity 60 times per second, which corresponds to its frequency of 60 Hertz (Hz) in many power systems, particularly those in the United States. This means that in one second, the current alternates its direction of flow and effectively changes its voltage from positive to negative and back again 60 times. This alternating nature is essential for the functioning of many electrical systems and appliances, as it allows for the efficient transmission of electricity over longer distances compared to direct current (DC). The frequency of the AC supply determines how often this change occurs, which is why knowing that it switches 60 times per second is crucial for understanding how AC operates in practice. It allows for compatibility with transformers and other devices that are designed to work with alternating current, enabling efficient energy distribution.