Construction Health and Safety Technician (CHST) Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. Which statement accurately describes the difference between an injury and an illness?

- **A. An injury results from a physical event; an illness may develop over time**
- **B. An injury requires hospitalization; an illness does not**
- **C. An injury is reported immediately; an illness is reported after a diagnosis**
- **D. There is no difference between injury and illness**

2. Which of the following is NOT classified as a prime carcinogen according to OSHA?

- **A. Benzene**
- **B. Ammonium hydroxide**
- **C. Asbestos**
- **D. Formaldehyde**

3. In the context of respiratory protection, what is the purpose of a high-efficiency particulate filter (HEPA)?

- **A. To enhance airflow**
- **B. To filter out very small particles, including toxins**
- **C. To provide cooling during hot weather**
- **D. To serve as a sound barrier**

4. A basic multimeter can measure which of the following electrical parameters?

- **A. Voltage, current, and capacitance**
- **B. Resistance, voltage, and capacitance**
- **C. Voltage, current, and resistance**
- **D. Current, capacitance, and frequency**

5. Which of the following is NOT recommended to prevent falling-objects injuries to workers below a scaffold?

- **A. Employing a safety buffer zone of 12 feet**
- **B. Using toe boards on scaffolds**
- **C. Ensuring proper tool storage**
- **D. Daily inspections of scaffolding**

6. Which of the following is NOT considered typical personal protective equipment?

A. Gloves

B. Hard hats

C. UV-rated sunglasses

D. Safety shoes

7. Which of the following is NOT a typical mode or type of respiratory protection used in the workplace?

A. Full-face respirators

B. Powered air-purifying respirators

C. Free-Oxygen respirators

D. Half-mask respirators

8. What should be ensured regarding ropes and rigging used in suspension scaffolding?

A. They require no inspections

B. They should be stored without any precautions

C. They need inspection at the beginning and during each shift

D. They can be exposed to heat sources

9. Which condition is associated with prolonged exposure to vibrations?

A. Muscle fatigue

B. Raynaud's Syndrome

C. Tinnitus

D. Asthma

10. What is defined as potentially fatal "orthostatic incompetence"?

A. The experienced medical effects of being immobilized or suspended in a vertical position

B. A sudden drop in blood pressure after standing up

C. The inability to withstand extreme temperatures

D. A condition caused by exposure to toxic fumes

Answers

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

Explanations

1. Which statement accurately describes the difference between an injury and an illness?

A. An injury results from a physical event; an illness may develop over time

B. An injury requires hospitalization; an illness does not

C. An injury is reported immediately; an illness is reported after a diagnosis

D. There is no difference between injury and illness

The statement that accurately describes the difference between an injury and an illness is that an injury results from a physical event, while an illness may develop over time. Injuries are typically abrupt and occur due to specific incidents such as falls, cuts, or accidents. These are usually visible events with immediate physical consequences. In contrast, illnesses often arise from prolonged exposure to hazardous conditions, such as toxic substances or repetitive strain, and can develop gradually, sometimes without immediate symptoms or visible signs. Other statements do not accurately capture the fundamental distinction. For example, the idea that an injury requires hospitalization while an illness does not is misleading, as both injuries and illnesses can range in severity and may or may not necessitate hospitalization based on their nature. Similarly, while injuries may often be reported immediately and illnesses following a diagnosis is a common practice, this does not define their inherent characteristics. Lastly, stating there is no difference between an injury and an illness overlooks the fundamental classifications of health conditions, which is important in the context of health and safety in construction.

2. Which of the following is NOT classified as a prime carcinogen according to OSHA?

A. Benzene

B. Ammonium hydroxide

C. Asbestos

D. Formaldehyde

Benzene, asbestos, and formaldehyde are all classified as prime carcinogens due to their known potential to cause cancer in humans upon exposure. Benzene is a well-documented carcinogen associated with increased risk of leukemia. Asbestos fibers can lead to lung cancer and mesothelioma, while formaldehyde has been linked to nasopharyngeal cancer and leukemia. Ammonium hydroxide, on the other hand, is primarily known as a corrosive substance rather than a carcinogen. While it can pose health risks through its caustic nature, its classification does not include cancer risk per OSHA guidelines. This distinction is essential for safety professionals to understand as it helps in the assessment and management of workplace hazards. Recognizing the difference between carcinogens and other hazardous materials is crucial for maintaining safety standards and ensuring compliance with health regulations.

3. In the context of respiratory protection, what is the purpose of a high-efficiency particulate filter (HEPA)?

A. To enhance airflow

B. To filter out very small particles, including toxins

C. To provide cooling during hot weather

D. To serve as a sound barrier

A high-efficiency particulate filter (HEPA) is specifically designed to trap very small particles, including those that can be harmful to health, such as toxins, allergens, and other contaminants present in the air. HEPA filters are capable of filtering out at least 99.97% of particles that are 0.3 microns in diameter. This high level of filtration is crucial in environments where air quality is compromised, as it helps to protect individuals from inhaling harmful substances, thereby reducing the risk of respiratory diseases and other health issues. While enhancing airflow, providing cooling, or serving as a sound barrier might seem relevant to other types of filters or protective equipment, these functions do not pertain to the primary role of a HEPA filter. The effectiveness of a HEPA filter lies in its ability to remove dangerous particles rather than influencing airflow, temperature, or sound. Its main purpose remains centered on ensuring clean breathing air for those exposed to hazardous conditions, making it an essential component in respiratory protection strategies.

4. A basic multimeter can measure which of the following electrical parameters?

A. Voltage, current, and capacitance

B. Resistance, voltage, and capacitance

C. Voltage, current, and resistance

D. Current, capacitance, and frequency

A basic multimeter is generally designed to measure three fundamental electrical parameters: voltage, current, and resistance. Voltage measurements can be taken in both alternating current (AC) and direct current (DC) modes, allowing the technician to assess the potential difference across electrical components. Current measurements also come in AC and DC forms, enabling the measurement of the flow of electric charge through a circuit. Resistance measurements help determine how much a component resists the flow of electric current, which is crucial for troubleshooting and ensuring the integrity of electrical circuits. While capacitance is a valuable parameter to measure, basic multimeters typically do not include the capability to measure capacitance unless they are specifically designed with that function. Therefore, while capacitance and frequency can be measured by advanced multimeter models, they are not part of the standard features found in a basic multimeter. This focus on the three key parameters – voltage, current, and resistance – is what makes this answer accurate for defining the capabilities of a basic multimeter.

5. Which of the following is NOT recommended to prevent falling-objects injuries to workers below a scaffold?

A. Employing a safety buffer zone of 12 feet

B. Using toe boards on scaffolds

C. Ensuring proper tool storage

D. Daily inspections of scaffolding

The choice indicating that employing a safety buffer zone of 12 feet is not recommended reflects an understanding of the more effective measures to prevent falling-object injuries. While a safety buffer zone may provide some level of protection, it does not directly mitigate the risk of falling objects in the way that the other options do. Using toe boards on scaffolds is essential because they create a barrier that prevents tools and materials from falling off the edge, thereby protecting workers below. Ensuring proper tool storage is critical as it minimizes the risk that tools will be left unsecured and potentially fall. Daily inspections of scaffolding are vital for identifying any potential hazards or wear and tear on the structure that could lead to falling objects. Each of these methods directly addresses the risks posed by falling objects, while a buffer zone alone does not offer the same level of preventative action.

6. Which of the following is NOT considered typical personal protective equipment?

A. Gloves

B. Hard hats

C. UV-rated sunglasses

D. Safety shoes

Personal protective equipment (PPE) is vital in maintaining safety on construction sites and consists of various items specifically designed to protect workers from potential hazards. In this context, gloves, hard hats, and safety shoes are common forms of PPE used across various industries, particularly construction. Gloves protect hands from cuts, abrasions, and chemical exposure; hard hats shield the head from impact and falling objects; and safety shoes often have reinforced toes and slip-resistant soles to protect feet from heavy items and provide stability on potentially slick surfaces. Although UV-rated sunglasses provide an important form of eye protection against harmful ultraviolet rays, they are not universally considered standard PPE in construction settings. Instead, more commonly recognized PPE for eye protection in construction includes safety goggles and face shields designed to protect against physical and chemical hazards. Thus, while UV-rated sunglasses serve a protective purpose, they do not fit the typical category of personal protective equipment specifically recognized and mandated for construction work.

7. Which of the following is NOT a typical mode or type of respiratory protection used in the workplace?

A. Full-face respirators

B. Powered air-purifying respirators

C. Free-Oxygen respirators

D. Half-mask respirators

The correct answer highlights that free-oxygen respirators are not a typical mode or type of respiratory protection used in the workplace. In occupational health and safety, respiratory protection systems are designed to filter or purify the air, allowing workers to breathe safely in environments where air is contaminated or oxygen is deficient. Full-face respirators, powered air-purifying respirators, and half-mask respirators are all recognized and widely used types of respiratory protection. Full-face respirators provide a higher level of protection by covering not just the mouth and nose but the eyes as well, creating a full seal against hazardous substances in the air. Powered air-purifying respirators use a fan to pull air through filters, making it easier to breathe, especially in high-contaminant environments. Half-mask respirators offer respiratory protection for the nose and mouth, ideal for many applications where full-face coverage is unnecessary. In contrast, free-oxygen respirators are not commonly classified with these types of devices. Instead, the term may imply equipment that supplies pure oxygen from a pressurized source, typically used in specific situations, like diving or space missions, rather than general workplace environments. Thus, the classification of respiratory protection effectively excludes free-oxygen respirators from typical usage in

8. What should be ensured regarding ropes and rigging used in suspension scaffolding?

A. They require no inspections

B. They should be stored without any precautions

C. They need inspection at the beginning and during each shift

D. They can be exposed to heat sources

Ropes and rigging used in suspension scaffolding are critical components that ensure the safety and stability of the structure. Regular inspection is essential because these materials are subjected to various stresses and environmental factors that can compromise their integrity over time. Inspecting the ropes and rigging at the beginning of each shift and throughout the day helps identify any signs of wear, damage, or deterioration that could lead to failure during use. Inspecting these components is a proactive safety measure that minimizes the risk of accidents and injuries on the job site. Regular checks for fraying, kinking, or abrasions, as well as ensuring that all connections and attachments are secure, contribute significantly to maintaining a safe working environment. These inspections are part of standard industry practices and protocols aimed at promoting worker safety and operational reliability. Ensuring that robust inspection routines are followed is a key aspect of effective risk management in construction operations.

9. Which condition is associated with prolonged exposure to vibrations?

A. Muscle fatigue

B. Raynaud's Syndrome

C. Tinnitus

D. Asthma

Prolonged exposure to vibrations is specifically associated with Raynaud's Syndrome, a condition that affects blood flow to certain parts of the body, usually the fingers and toes. The vibrations can lead to the constriction of blood vessels, especially in extremities, causing symptoms such as color changes, numbness, and coldness in response to cold temperatures or stress. This response results from the body's vascular reaction to the vibrations, which can disrupt normal circulation. Muscle fatigue can occur due to various forms of physical exertion, but it is not directly linked to the impact of vibrations in the same way Raynaud's Syndrome is. Tinnitus refers to ringing or buzzing in the ears often related to noise exposure, and asthma is a respiratory condition primarily influenced by allergens or irritants, making them less relevant in the context of prolonged vibration exposure. Thus, the connection of Raynaud's Syndrome to vibration exposure highlights the specific physiological effects of such conditions.

10. What is defined as potentially fatal "orthostatic incompetence"?

A. The experienced medical effects of being immobilized or suspended in a vertical position

B. A sudden drop in blood pressure after standing up

C. The inability to withstand extreme temperatures

D. A condition caused by exposure to toxic fumes

The condition referred to as "orthostatic incompetence" specifically relates to a sudden drop in blood pressure that occurs when a person stands up after being in a sitting or lying position for an extended period. This physiological response can lead to symptoms such as dizziness, lightheadedness, and even fainting, which can be potentially fatal if not managed properly. Understanding this condition is crucial in various settings, especially in construction or other physically demanding jobs, where quick movements from sitting or lying down to standing can trigger these symptoms. In contrast, the option that discusses immobilization or suspension in a vertical position does not pinpoint the mechanism of blood pressure regulation affected by sudden postural changes. The other options touch on conditions related to temperature extremes and toxic exposure, which are unrelated to the specific cardiovascular response characteristic of orthostatic incompetence. This underscores the importance of recognizing this condition in contexts where workers may transition quickly between different postures.