Certified Industrial Hygienist Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Table of Contents

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

1. What unit measures illumination in terms of foot candles?

A. Meter squared

B. Foot squared

C. Area per light source

D. Amount of light per square foot

2. What is the purpose of the SARA legislation?

A. To regulate ozone depletion

B. To establish toxic release inventory reporting requirements

C. To define radon levels

D. To set chemical production limits

3. What health condition is linked to carbon disulfide exposure?

A. Respiratory failure

B. Neuropathy

C. Liver damage

D. Skin cancer

4. Which unit is equivalent to Joules per second?

A. Volt

B. Watt

C. Newton

D. Lumen

5. Which toxic metal is most commonly linked to granulomatous lesions?

A. Beryllium

B. Cadmium

C. Chrome

D. Lead

6. What is the reference sound pressure level in N/m^2?

A. 2 x 10^-6 N/m^2

B. 2 x 10^-5 N/m^2

C. 2 x 10^-4 N/m^2

D. 2 x 10^-3 N/m^2

7. Which of the following is NOT a disease associated with bacterial infection?

A. Tularemia

B. Lyme disease

C. Rocky Mountain Spotted Fever

D. Asthma

8. Which lasers produce light in the visible region?

A. CO2 laser

B. Ruby and Helium-Neon lasers

C. Nd:YAG laser

D. Argon laser

9. What is the formula to calculate outdoor air supply in terms of concentration?

A. (Cr - Co) / (Cs - Co)

B. (Cr - Cs) / (Cr - Co)

C. (Cs - Co) / (Cr - Co)

D. (Cr - Cs) / (Cs - Co)

10. What type of light do excimer lasers produce?

A. Visible light

B. Infrared light

C. Ultraviolet light

D. X-ray light

Answers

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

Explanations

1. What unit measures illumination in terms of foot candles?

A. Meter squared

B. Foot squared

C. Area per light source

D. Amount of light per square foot

The correct response measures illumination in foot candles by quantifying the amount of light that reaches a surface area of one square foot from a light source. A foot candle is defined as the illumination produced by a light source that emits one lumen of light uniformly across a one-foot square area. Therefore, saying "amount of light per square foot" accurately reflects the measurement of illumination. In this context, other options may refer to different units or concepts that do not directly describe the illumination intensity. For instance, "meter squared" and "foot squared" pertain to units of area, which don't specifically quantify light intensity or distribution. "Area per light source" is ambiguous and does not clearly define how illumination is measured with respect to the amount of light hitting a surface. Thus, the correct choice effectively captures the essence of what a foot candle represents in terms of light measurement.

2. What is the purpose of the SARA legislation?

A. To regulate ozone depletion

B. To establish toxic release inventory reporting requirements

C. To define radon levels

D. To set chemical production limits

The purpose of the SARA legislation, specifically the Superfund Amendments and Reauthorization Act of 1986, is to establish toxic release inventory reporting requirements. This act was an amendment to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and aimed to increase the public's access to information about chemical releases into the environment. As part of this, SARA requires facilities that produce, process, or use certain chemicals to report annually on the quantities released, thus enhancing community awareness and promoting safety and environmental health. This reporting requirement helps to hold companies accountable for their emissions and provides essential data to the public and government agencies for better environmental management and health protection. The other choices do not accurately represent SARA's primary intentions. While ozone depletion, radon levels, and chemical production limits are important environmental concerns, they fall under different regulations and legislative measures. SARA focuses specifically on informing the public about hazardous chemical releases, making transparency in toxic substances a key function of the legislation.

3. What health condition is linked to carbon disulfide exposure?

A. Respiratory failure

B. Neuropathy

C. Liver damage

D. Skin cancer

Carbon disulfide exposure is primarily associated with neuropathy, particularly peripheral neuropathy. This condition arises when the nervous system is damaged, which can lead to symptoms such as numbness, tingling, pain in the extremities, and muscle weakness. Neuropathy linked to carbon disulfide exposure often occurs due to the solvent's neurotoxic properties, which can disrupt normal nerve function and potentially lead to long-term effects if exposure continues. While other health conditions like respiratory issues or liver damage may be influenced by various toxic exposures, carbon disulfide's direct association with damaging peripheral nerves makes neuropathy the most relevant condition in this case. Similarly, skin cancer is not typically linked to carbon disulfide exposure, as it does not have carcinogenic properties related to skin tissue specifically.

4. Which unit is equivalent to Joules per second?

A. Volt

B. Watt

C. Newton

D. Lumen

The unit that is equivalent to Joules per second is the Watt. This is because a Watt is defined as one Joule of energy transferred or converted per second of time. This relationship highlights the concept of power, where power is the rate at which work is done or energy is transferred. To understand this in context, consider that in electrical systems, power is calculated as the product of voltage (in volts) and current (in amperes). Since 1 Watt equals 1 Joule per second, when electrical energy flows through a circuit, it describes the amount of energy used or produced over time in a concise way. This direct connection to energy and time illustrates why the Watt is the correct answer. Other options represent different physical concepts: Volts measure electric potential, Newtons measure force, and Lumens measure luminous flux, none of which directly relate to the concept of power as defined by Joules per second.

5. Which toxic metal is most commonly linked to granulomatous lesions?

A. Beryllium

B. Cadmium

C. Chrome

D. Lead

Beryllium is the toxic metal most commonly associated with granulomatous lesions. Granulomas are small, localized inflammatory responses that can occur in the lungs and other tissues as a reaction to exposure to certain materials, including beryllium. This metal can provoke an immune response that leads to the formation of these granulomas, which are characterized by the aggregation of macrophages that transform into epithelioid cells in an attempt to isolate the foreign material. The link between beryllium exposure and granulomatous disease is well-documented, particularly in cases of chronic beryllium disease (CBD), which is a lung condition caused by beryllium exposure that leads to the development of granulomas within the pulmonary system. Recognizing the role of beryllium in such pathological occurrences is crucial for industrial hygienists when assessing workplace exposure and implementing appropriate safety measures. In contrast, while cadmium, chrome, and lead can have various toxic effects on human health, they are generally not associated with the formation of granulomatous lesions. For instance, cadmium is primarily linked to renal toxicity and is not characterized by granuloma formation. Chrome compounds may cause other health issues, notably respiratory conditions, but not granulomas.

6. What is the reference sound pressure level in N/m^2?

A. 2 x 10^-6 N/m^2

B. 2 x 10^-5 N/m^2

C. 2 x 10^-4 N/m^2

D. 2 x 10^-3 N/m^2

The reference sound pressure level is defined as 20 microPascals, which is expressed mathematically as 20 x 10^-6 Pascals. This value can be simplified to 2 x 10^-5 N/m^2 when converting microPascals to standard units of pressure. Having this reference is crucial in the field of acoustics and industrial hygiene, as it establishes a baseline for measuring sound levels. The reference level is used to calculate sound pressure levels in decibels (dB) and is essential for assessing workplace noise exposure and making recommendations for hearing conservation. In summary, the correct choice reflects the established standard for reference sound pressure, making it an essential aspect of sound measurement in various applications, particularly industrial hygiene.

7. Which of the following is NOT a disease associated with bacterial infection?

A. Tularemia

B. Lyme disease

C. Rocky Mountain Spotted Fever

D. Asthma

Asthma is recognized primarily as a chronic respiratory condition characterized by inflammation and narrowing of the airways, which can result in difficulty breathing, wheezing, and coughing. Unlike the other options listed, asthma is not caused by a bacterial infection, but rather by a combination of genetic and environmental factors that might include allergens, irritants, respiratory infections, and exercise. On the other hand, the other conditions mentioned – tularemia, Lyme disease, and Rocky Mountain spotted fever – are all diseases that result from bacterial infections. Tularemia is caused by the bacterium Francisella tularensis, Lyme disease is associated with Borrelia burgdorferi, and Rocky Mountain spotted fever is linked to Rickettsia rickettsii. Understanding the distinction between these infectious diseases and non-infectious conditions like asthma is crucial in the field of industrial hygiene and public health.

8. Which lasers produce light in the visible region?

A. CO2 laser

B. Ruby and Helium-Neon lasers

C. Nd:YAG laser

D. Argon laser

The lasers that produce light in the visible region include the Ruby and Helium-Neon lasers. The Ruby laser emits a deep red light, which falls into the visible spectrum, specifically around ruby laser emits light at 694 nm, making it visible to the human eye. The Helium-Neon (HeNe) laser also produces visible light, particularly in the red region at around 632.8 nm. Both of these lasers are commonly used in various applications such as laser pointers, barcode scanners, and alignment tools, demonstrating their capacity to produce visibly tangible beams of light. In contrast, the other lasers mentioned do not primarily produce light in the visible region. For instance, the CO2 laser emits in the infrared range and is therefore not visible to the naked eye. The Nd:YAG laser also typically emits in the infrared spectrum at wavelengths around 1064 nm, although it can be frequency-doubled to produce visible light; however, its primary output is infrared. The Argon laser predominantly emits in the blue-green region but is often considered a specialized source and is less commonly referenced compared to Ruby and He-Ne lasers for general visible light applications.

9. What is the formula to calculate outdoor air supply in terms of concentration?

A. (Cr - Co) / (Cs - Co)

B. (Cr - Cs) / (Cr - Co)

C. (Cs - Co) / (Cr - Co)

D. (Cr - Cs) / (Cs - Co)

The formula for calculating outdoor air supply in terms of concentration involves understanding the relationship between the concentrations of contaminants in different air zones. Specifically, the formula utilizes the concentrations of the contaminated air (Cr), the outdoor air (Co), and the supply air (Cs). In this context, the correct formula, which is represented by the answer provided, directly relates to determining how much outdoor air contributes to achieving a specific desired concentration within an enclosed space. The formulation accounts for the following aspects: - Cr denotes the concentration of contaminants in the return air. - Co represents the concentration of contaminants in the outdoor air, which is often lower or can be perceived as fresh air. - Cs indicates the concentration in the supply air that can be mixed with return air to dilute the contaminants. By rearranging and taking into account these relationships, the calculation effectively assesses the contribution of outdoor air to the indoor air quality, illustrating how the proportions of different air streams affect the overall concentration of contaminants. This is crucial for industrial hygiene assessments aimed at ensuring healthy environment standards. Utilizing this correct formula also implies that a significant understanding of air dilution principles is at play in maintaining air quality, which is essential for industrial hygienists.

10. What type of light do excimer lasers produce?

A. Visible light

B. Infrared light

C. Ultraviolet light

D. X-ray light

Excimer lasers produce ultraviolet light. This type of laser operates using a combination of an inert gas and a reactive gas, which forms a temporary molecular complex called an excimer. When this complex is energized, it releases energy in the form of light, primarily in the ultraviolet spectrum. Ultraviolet light is important for various applications, including photolithography in semiconductor manufacturing and certain types of medical and cosmetic procedures, such as laser eye surgery. The unique properties of excimer lasers, such as their ability to produce high-intensity, short-wavelength light, enable precise and controlled material ablation, which is vital in these industries. Other types of light, such as visible, infrared, and X-ray light, are not produced by excimer lasers, as they operate outside the specified range of wavelengths, which makes the option of ultraviolet light the correct choice.

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://industrialhygeinist.examzify.com

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