Ohio Sanitarian Practice Exam (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

1. Which of the following would be classified as a non-transient, non-community water system (NTNCWS)?

A. A water supply serving a campground

B. A water supply serving a small city

C. A water supply serving a highway rest area

D. A water supply serving a factory with at least 25 employees

2. The quality of surface water depends on:

A. The use of chemicals for disinfection of drinking water

B. The elimination of coliform organisms

C. The watershed area drained, land use, location and sources of pollution, and the natural agencies of purification

D. The injecting of a chlorine solution into water at its source

3. Diatomaceous earth filters should be augmented by which of the following?

A. Chlorination

B. Reverse osmosis

C. Filtration

D. Carbon adsorption

4. What characteristic of fine loamy sand allows for effective virus removal from water?

A. High permeability

B. Small particle size

C. Presence of nutrients

D. Strong adsorption properties

5. What factors are fundamental to controlling inorganic chemicals in drinking water?

A. Sanitary survey

B. Identification of the sources

C. Determination of amounts of pollutants

D. All of the above

6. Why is it advisable to have a faucet situated well above the rim of a sink?

A. Interference with proper drainage of the sink

B. Possible suction of wastewater into the supply of potable water

C. Keep the metal of the faucet from coming in contact with the water in the sink

D. Keep sink from overflowing

7. Historically, the need to control which disease prompted the establishment of adequate water treatment in the US?

A. Infectious hepatitis

B. TB

C. Malaria

D. Typhoid

8. What does a high Methylene Blue Active Substance (MBAS) level indicate?

A. Heavy metal contamination

B. Presence of organic pollutants

C. Clarity of water

D. Presence of detergents

9. What does not constitute a treatment method for controlling organic chemicals?

A. Conduct sanitary surveys

B. Upgrade water treatment plants

C. Identify pollutants

D. Contact regulatory authorities

10. Hardness in drinking water is considered desirable at levels of what range?

A. 80 to 150 mg/l

B. 50 to 80 mg/l

C. 0 to 50 mg/l

D. 0 to 5 mg/l

Answers

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

Explanations

1. Which of the following would be classified as a non-transient, non-community water system (NTNCWS)?

A. A water supply serving a campground

B. A water supply serving a small city

C. A water supply serving a highway rest area

D. A water supply serving a factory with at least 25 employees

A non-transient, non-community water system (NTNCWS) is a type of public water system that provides water for human consumption to at least 25 of the same people over six months a year, but is not used primarily for residential purposes. In this context, the water supply serving a factory with at least 25 employees qualifies as an NTNCWS because it consistently serves the same group of individuals—namely, the employees of the factory. This meets the criteria of having a stable population that is not transient, given that these employees typically work at the factory on a regular basis. In contrast, a water supply serving a campground generally caters to a fluctuating number of visitors, which would classify it as a transient system. A water supply serving a small city would fall under a community water system, serving permanent residential users. Similarly, a water supply to a highway rest area also serves a transient population, as the users are temporary travelers and do not form a stable group over time. Hence, these scenarios do not meet the specific criteria set for NTNCWS classification.

2. The quality of surface water depends on:

A. The use of chemicals for disinfection of drinking water

B. The elimination of coliform organisms

C. The watershed area drained, land use, location and sources of pollution, and the natural agencies of purification

D. The injecting of a chlorine solution into water at its source

The quality of surface water is significantly influenced by numerous factors, as described in the correct choice. The watershed area is crucial because it encompasses all the land that drains into a specific body of water, meaning that any activities within this area can directly affect water quality. Factors such as land use—whether agricultural, industrial, or urban—impact the runoff that enters the water source, potentially introducing pollutants like fertilizers, pesticides, and sediments. Additionally, the location of the water body matters; for example, a river near urban areas might receive more contaminants than one in a more pristine environment. Sources of pollution can vary widely, including point sources (like wastewater treatment plants) and non-point sources (like agricultural runoff). Lastly, natural agencies of purification, such as wetlands and riparian buffers, play a vital role in improving water quality by filtering pollutants and providing habitats for wildlife. Understanding these interconnected factors helps in developing effective water management practices and regulations aimed at preserving surface water quality. This multifaceted consideration makes the answer correct as it encompasses the broad range of influences on surface water quality.

3. Diatomaceous earth filters should be augmented by which of the following?

A. Chlorination

B. Reverse osmosis

C. Filtration

D. Carbon adsorption

Diatomaceous earth filters are widely used in water treatment processes for their ability to remove a variety of contaminants, particularly small particles and microorganisms. However, while they effectively filter out particles, they do not provide disinfection against pathogens such as bacteria and viruses. This is where chlorination comes into play. Chlorination is a well-established method for disinfecting water, as chlorine is a powerful oxidizing agent that can kill or inactivate harmful microorganisms. When used in conjunction with diatomaceous earth filters, chlorination ensures that any pathogens that may have passed through or settled in the water are effectively dealt with, ensuring that the water is safe for consumption. In contrast, reverse osmosis is primarily a type of filtration that removes dissolved solids and certain contaminants, but it does not specifically target microbial disinfection or augment the filtration capability of diatomaceous earth. Similarly, carbon adsorption is effective for removing certain organic compounds and improving taste and odor but does not address disinfection needs. Additional filtration does not augment the processes in a manner that specifically addresses the need for pathogen control. Therefore, chlorination is the most suitable and effective augmentation for diatomaceous earth filters to ensure both physical filtration and microbial safety.

4. What characteristic of fine loamy sand allows for effective virus removal from water?

A. High permeability

B. Small particle size

C. Presence of nutrients

D. Strong adsorption properties

Fine loamy sand possesses strong adsorption properties, which play a crucial role in the effective removal of viruses from water. This characteristic allows the soil to bind or capture the viruses as water passes through, leading to a reduction in their concentration in the effluent. The interaction between the virus particles and the soil matrix facilitates this removal process, making adsorption a key mechanism in natural filtration systems. While fine loamy sand does have a degree of permeability, which affects the flow rate of water through it, the primary factor in virus removal is the ability of the soil particles to adsorb contaminants. The small particle size can contribute to a larger surface area for adsorption; however, it is the specific strong adsorption properties that are most significant for effective virus removal. Nutrients, while beneficial for microbial growth, do not directly contribute to virus removal in this context.

5. What factors are fundamental to controlling inorganic chemicals in drinking water?

A. Sanitary survey

B. Identification of the sources

C. Determination of amounts of pollutants

D. All of the above

Controlling inorganic chemicals in drinking water is a multifaceted process that requires a comprehensive approach incorporating several key factors. Each of the choices contributes essential elements for effective management and regulation of water quality. A sanitary survey plays a crucial role because it involves assessing the entire water supply system, including the sources, treatment methods, and distribution systems. This comprehensive evaluation helps identify potential points of contamination and areas that may need improvement or monitoring. Identifying the sources of inorganic chemicals is fundamental as it allows for targeted interventions. Understanding where these contaminants originate enables authorities to implement specific strategies to reduce or eliminate their presence. For instance, if the source is agricultural runoff, appropriate practices can be introduced to minimize its impact on nearby water supplies. Determining the amounts of pollutants in the water is critical for assessing compliance with safety standards and understanding the severity of contamination. Accurate measurements provide data that inform the necessary actions for remediation or treatment, ensuring that the water supplied meets health regulations. Together, these elements create an effective framework for monitoring and controlling inorganic chemicals in drinking water, making the option that includes all of these factors the most comprehensive answer.

6. Why is it advisable to have a faucet situated well above the rim of a sink?

A. Interference with proper drainage of the sink

B. Possible suction of wastewater into the supply of potable water

C. Keep the metal of the faucet from coming in contact with the water in the sink

D. Keep sink from overflowing

Having a faucet situated well above the rim of a sink is essential primarily to prevent the possible suction of wastewater into the supply of potable water, which is known as backflow. In plumbing systems, backflow occurs when there is a sudden drop in water pressure, potentially allowing contaminants from the sink or drain to be siphoned back into the clean water supply. By ensuring that the faucet is positioned higher than the sink's rim, a physical barrier is created that significantly reduces the risk of cross-connections between the potable water and any potential contaminants, thus safeguarding public health and maintaining the integrity of the water supply. This practice aligns with plumbing codes and health regulations designed to promote safe water systems.

7. Historically, the need to control which disease prompted the establishment of adequate water treatment in the US?

A. Infectious hepatitis

B. TB

C. Malaria

D. Typhoid

The establishment of adequate water treatment in the United States was significantly prompted by the need to control typhoid fever. Typhoid fever is caused by the bacterium Salmonella typhi, which is typically transmitted through contaminated water. In the late 19th and early 20th centuries, outbreaks of typhoid fever were common, and it became clear that improving sanitation and water quality was critical to public health. As urban areas grew and populations increased, the risk of water contamination also rose, making the lack of proper water treatment a serious public health concern. Efforts to develop effective water treatment methods, including filtration and chlorination, helped to greatly reduce the incidence of this disease. By focusing on controlling typhoid, public health officials recognized the importance of clean water, leading to advancements in water treatment processes, regulations, and the establishment of modern public health infrastructure, which have had lasting effects on water safety and disease prevention.

8. What does a high Methylene Blue Active Substance (MBAS) level indicate?

A. Heavy metal contamination

B. Presence of organic pollutants

C. Clarity of water

D. Presence of detergents

A high Methylene Blue Active Substance (MBAS) level indicates the presence of detergents in water. The MBAS test measures the concentration of surfactants, which are active components in household and industrial detergents. When these surfactants are present in elevated levels, it can suggest pollution from sources such as wastewater discharges or runoff containing cleaning products. Understanding the significance of MBAS levels is crucial for assessing water quality, especially in environments where cleanliness and the management of chemical substances are vital. High MBAS readings specifically point to contamination from detergents rather than indicating issues related to heavy metals or organic pollutants, which would require different testing methods to identify. Clarity of water is generally assessed using different parameters, such as turbidity, rather than by MBAS levels.

9. What does not constitute a treatment method for controlling organic chemicals?

A. Conduct sanitary surveys

B. Upgrade water treatment plants

C. Identify pollutants

D. Contact regulatory authorities

To understand why upgrading water treatment plants does not constitute a treatment method for controlling organic chemicals, it's essential to recognize the distinction between treatment methods and actions related to management or regulation. Upgrading water treatment plants typically involves enhancing the infrastructure or technology used to treat water. While such upgrades can improve the overall efficiency and effectiveness in removing contaminants, including organic chemicals, they are not in themselves a direct treatment method. Treatment methods specifically address the processes used to remove or reduce the concentration of organic chemicals from the water, such as filtration, chemical treatment, or biological treatment. In contrast, conducting sanitary surveys, identifying pollutants, and contacting regulatory authorities all relate to understanding and managing water quality. These activities are crucial for recognizing problems, assessing risks, and ensuring compliance with health standards, but they do not constitute direct treatment processes for organic chemicals in the water supply. Thus, upgrading water treatment plants does not directly involve the treatment of organic chemicals in a way that alters their composition or reduces their presence in water.

10. Hardness in drinking water is considered desirable at levels of what range?

A. 80 to 150 mg/l

B. 50 to 80 mg/l

C. 0 to 50 mg/l

D. 0 to 5 mg/l

Hardness in drinking water is primarily attributed to the presence of calcium and magnesium ions. The range of 50 to 80 mg/l is often considered ideal because it strikes a balance between taste and potential health benefits. Water within this range is generally accepted as safe and palatable for consumption. Hardness levels below this range may indicate very soft water, which could lead to challenges in drinking water quality, such as being too corrosive and potentially leaching metals from plumbing systems. On the other hand, water hardness levels above 80 mg/l can still be acceptable but may begin to affect taste and potentially cause scale buildup in plumbing and appliances. Thus, the range of 50 to 80 mg/l is associated with pleasing flavor profiles while minimizing risks, making it the desirable standard for drinking water hardness.

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://ohiosanitarian.examzify.com

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