NEHA Environmental Health and Safety (EHS) Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. What is the particle count typically found in urban areas?

A. Less than 10,000

B. Between 10,000 and 20,000

C. Greater than 50,000

D. 50,000 to 100,000

2. What can happen when relative humidity exceeds 60%?

A. Improved air quality

B. Enhanced comfort

C. Corrosion and mildew

D. Reduced energy costs

3. What is an essential component of providing public communication during emergencies?

A. Providing lengthy reports

B. Being overly cautious

C. Maintaining accuracy and authority

D. Encouraging speculation

4. What does the term shell stock refer to?

A. Cooked shellfish products

B. Raw, in shell, mollusc shellfish

C. Frozen shellfish products

D. Farm-raised shellfish

5. What is the first step in initiating a community project related to environmental health?

A. Form a task force of environmental professionals

B. Conduct a survey on community needs

C. Call meetings of the community group to identify problems

D. Draft a detailed project proposal

6. Which agency is typically consulted for writing water policy?

A. EPA

B. AWWA

C. NGWA

D. USGS

7. What are the four recognized uses of potable drinking water?

A. Drinking, culinary, irrigation, hygiene

B. Drinking, culinary, bathing, laundry purposes

C. Drinking, entertainment, hygiene, landscaping

D. Drinking, culinary, cleaning, cooling

8. What is included in the suitable temperature condition for hyperchlorination?

A. Above 60°F

B. Above 65°F

C. Above 77°F

D. Above 80°F

9. What primarily determines the strength of sewage?

A. pH levels

B. Biological oxygen demand

C. Chemical oxygen demand

D. Suspended solids

10. What is the best method to minimize odors in a latrine or privy?

A. Chemical treatments

B. Biological activities and ventilation

C. Sealing with concrete

D. Frequent cleaning

Answers

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

Explanations

1. What is the particle count typically found in urban areas?

A. Less than 10,000

B. Between 10,000 and 20,000

C. Greater than 50,000

D. 50,000 to 100,000

In urban areas, the particle count can often be greater than 50,000 particles per cubic centimeter, particularly due to high levels of air pollution resulting from vehicular emissions, industrial activities, construction, and other urban activities. This elevated concentration is influenced by various factors such as population density, traffic volume, and the presence of industrial facilities that contribute particulate matter to the atmosphere. Particulate matter includes a range of particle sizes, from fine particles (like PM2.5) to larger particles (like PM10), and urban environments typically exhibit higher counts compared to rural areas because of these contributing factors. High particle counts can have significant implications for public health and environmental quality, underscoring the need for effective air quality management practices in cities. The other ranges provided would generally not capture the typical particle concentration found in urban areas, which is characterized by higher pollution levels due to anthropogenic activities. Indicates that the option reflecting greater than 50,000 aligns with the observed data concerning urban air quality issues.

2. What can happen when relative humidity exceeds 60%?

A. Improved air quality

B. Enhanced comfort

C. Corrosion and mildew

D. Reduced energy costs

When relative humidity exceeds 60%, the environment becomes conducive to the growth of mold, mildew, and other types of fungi. High humidity levels can also lead to corrosion of materials, especially metals, as moisture in the air creates a more conducive environment for oxidation and deterioration. Additionally, excess moisture can contribute to the proliferation of dust mites and other allergens, which can degrade indoor air quality. In contrast, the other options do not accurately reflect the consequences of high humidity. For instance, improved air quality and enhanced comfort are typically associated with moderate humidity levels, while reduced energy costs don't align with the effects of high humidity, as it may actually increase the demand for air conditioning and ventilation to maintain comfort and control moisture levels.

3. What is an essential component of providing public communication during emergencies?

A. Providing lengthy reports

B. Being overly cautious

C. Maintaining accuracy and authority

D. Encouraging speculation

Maintaining accuracy and authority is a vital component of providing public communication during emergencies. In a crisis situation, information can spread rapidly, and the consequences of misinformation can be severe. By ensuring that the information shared is accurate, organizations can help to foster trust and credibility with the public. This, in turn, enables people to make informed decisions during emergencies, which is crucial for their safety and well-being. Furthermore, authoritative communication strengthens public response efforts and can reduce panic by providing clear and consistent messages. This helps to manage the situation more effectively and ensures that the public remains calm and focused on necessary actions. While other options may seem relevant in the context of communication, they do not align with the core responsibilities of effective public communication during emergencies. For example, lengthy reports can overwhelm an audience during a fast-moving situation, leading to confusion instead of comprehension. Being overly cautious may hinder the timeliness and clarity of essential information, which could result in the public not receiving critical updates when they are needed most. Encouraging speculation can lead to misinformation and confusion, undermining the very goals of effective communication during emergencies.

4. What does the term shell stock refer to?

A. Cooked shellfish products

B. Raw, in shell, mollusc shellfish

C. Frozen shellfish products

D. Farm-raised shellfish

The term "shell stock" specifically refers to raw, in-shell mollusc shellfish. This includes items such as oysters, clams, and mussels that are harvested and sold in their natural shell, which must be kept alive until consumed. The importance of shell stock lies in their biological and environmental conditions; as they must be handled properly to ensure food safety for consumption. Shellstock is commonly used in foodservice and retail contexts and is subject to specific regulatory standards to manage health risks associated with shellfish consumption. This option is aligned with industry standards and definitions related to seafood safety and storage practices, highlighting the necessity for proper management from harvest to serving.

5. What is the first step in initiating a community project related to environmental health?

A. Form a task force of environmental professionals

B. Conduct a survey on community needs

C. Call meetings of the community group to identify problems

D. Draft a detailed project proposal

The initial step in initiating a community project related to environmental health is to call meetings of the community group to identify problems. Engaging the community directly allows project leaders to understand the specific environmental health concerns that residents face. This grassroots approach fosters community involvement and ensures that the project is relevant to the actual needs of the population it aims to serve. By convening these meetings, stakeholders can gather valuable input and perspectives from community members, which helps in pinpointing the most pressing issues that require attention. This foundational step lays the groundwork for subsequent actions, such as conducting surveys, forming task forces, or drafting project proposals, as it creates a collaborative environment where individuals feel invested in the project's goals. Understanding the community's primary concerns right from the start helps ensure that the project's development is focused, addressing real needs rather than perceived issues.

6. Which agency is typically consulted for writing water policy?

A. EPA

B. AWWA

C. NGWA

D. USGS

The correct choice for which agency is typically consulted for writing water policy is the American Water Works Association (AWWA). The AWWA plays a significant role in shaping water policy through its extensive network of professionals and its commitment to improving water quality and supply. This organization develops standards, guidelines, and technical resources that assist in the formulation of effective water management policies and practices. While the Environmental Protection Agency (EPA) does set regulations concerning water quality and pollution, its primary role is regulatory rather than the proactive development of comprehensive water policy frameworks. The National Ground Water Association (NGWA) focuses on groundwater resources but does not have as broad a mandate as AWWA in writing overarching water policy. The United States Geological Survey (USGS) provides valuable data and research on water resources, but its primary focus is on scientific investigations rather than direct involvement in policy creation. Thus, when it comes to consulting for water policy, AWWA is the key agency involved.

7. What are the four recognized uses of potable drinking water?

A. Drinking, culinary, irrigation, hygiene

B. Drinking, culinary, bathing, laundry purposes

C. Drinking, entertainment, hygiene, landscaping

D. Drinking, culinary, cleaning, cooling

The four recognized uses of potable drinking water encompass essential daily activities that directly impact health, hygiene, and lifestyle. Drinking water is primarily used for consumption—hydration is crucial for maintaining health and bodily functions. Culinary uses include cooking and preparing food, where the quality of water directly affects food safety and nourishment. Bathing represents a significant hygiene practice, which involves using water for personal cleanliness and sanitation; this is essential for preventing the spread of illness and maintaining overall well-being. Laundry purposes imply using water for washing clothes, another important hygiene factor that supports public health standards by ensuring that both personal and communal clothing stays clean and free from pathogens. Although the other options mention valid activities involving water, they don't all align closely with the primary recognized uses of potable water. For instance, while irrigation, landscaping, cleaning, and cooling are significant, they pertain to non-potable water or do not directly align with individual health and hygiene needs as strongly as bathing and laundry do.

8. What is included in the suitable temperature condition for hyperchlorination?

A. Above 60°F

B. Above 65°F

C. Above 77°F

D. Above 80°F

The suitable temperature condition for hyperchlorination is typically recognized as being above 77°F. At this temperature, the efficacy of chlorine increases, making it more effective for disinfection purposes in water treatment processes. Warmer temperatures enhance the chemical reaction rate, allowing for faster and more complete disinfection of water by chlorine. In many water treatment protocols, hyperchlorination is utilized as a method to control pathogens in water supplies, especially during contamination events. Carbon compounds present in the water can also reduce the effectiveness of chlorine, hence ensuring the water temperature is within the optimal range is essential for achieving the desired concentration and effect of chlorine in disinfection efforts.

9. What primarily determines the strength of sewage?

A. pH levels

B. Biological oxygen demand

C. Chemical oxygen demand

D. Suspended solids

The primary strength of sewage is determined by Biological Oxygen Demand (BOD). BOD is a measure of the amount of oxygen that microorganisms will consume while decomposing organic matter in sewage. This measurement provides insight into the degree of pollution found in the sewage and indicates the organic material present, which is crucial for understanding its potential impact on receiving waters. When BOD is high, it reflects high levels of biodegradable organic material, which is a significant concern for water quality because it can lead to oxygen depletion in aquatic ecosystems. Managing and treating sewage with high BOD levels is essential for environmental protection and ensuring that ecosystems are not adversely affected by nutrient loading. Other factors like pH levels, Chemical Oxygen Demand (COD), and suspended solids do provide important information about the sewage, but they do not give as direct a measure of the organic strength as BOD does. pH informs about the acidity or alkalinity of the effluent, COD measures the total amount of oxygen required to oxidize both biodegradable and non-biodegradable substances, and suspended solids quantify the solid particles in the water. However, BOD is the primary determinant of sewage strength due to its direct relationship with organic contamination.

10. What is the best method to minimize odors in a latrine or privy?

A. Chemical treatments

B. Biological activities and ventilation

C. Sealing with concrete

D. Frequent cleaning

Minimizing odors in a latrine or privy is most effectively achieved through biological activities and ventilation. This method works by promoting the growth of microorganisms that break down waste materials, which helps to reduce the production of odorous compounds. By enhancing air circulation through proper ventilation, odors can be dispersed, reducing their concentration and making them less perceptible. Biological activities, such as the introduction of enzymes or beneficial bacteria, can accelerate the decomposition of organic material, leading to fewer smells. Ventilation, whether through the use of vents or by design that allows air to flow freely, plays a crucial role in refreshing the air inside the latrine, carrying away unpleasant odors and preventing them from accumulating. While chemical treatments can cover up or mitigate some odors temporarily, they do not address the underlying waste management issues and may not be environmentally friendly. Sealing with concrete may prevent leaks but does not eliminate odors and can create a stagnant environment. Frequent cleaning is helpful, but without proper biological and ventilation strategies, it may not be sufficient to manage odors effectively over time. Thus, the combination of biological activity and ventilative measures is the most comprehensive approach to minimizing odors in this context.