FNGLA Horticulture Practices Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. What is the main purpose of using a soil test?

A. To determine nutrient levels and pH for optimal plant growth

B. To measure the amount of sunlight in the garden

C. To assess the color of the soil

D. To evaluate insect populations in the soil

2. Auxiliary or lateral buds are found at the base of which part of the plant?

A. Stem

B. Leaf

C. Flower

D. Root

3. Which rates are typically lower for companies that prioritize safety?

A. Tax rates

B. Fuel costs

C. Insurance rates

D. Employee wages

4. What is the duration of the FNGLA Certified Horticultural Professional Exam?

A. 1 hour

B. 2 hours

C. 3 hours

D. 4 hours

5. What is the process called when cells divide by splitting in half?

A. Meiosis

B. Mitosis

C. Cytokinesis

D. Fission

6. True or False: Chain saw operators should never work alone.

A. True

B. False

7. Accident investigation reports must be submitted to the company safety coordinator within how many hours of the accident?

A. 12 hours

B. 24 hours

C. 36 hours

D. 48 hours

8. What type of protection is often neglected in safety programs?

A. Eye

B. Hearing

C. Hand

D. Respiratory

9. What is the primary energy molecule used by plants during the food production process?

A. ATP

B. ADP

C. Glucose

D. Sucrose

10. What condition can be caused by overwatering plants?

A. Pest infestation

B. Fungal infection

C. Root rot

D. Leaf scorch

Answers

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

Explanations

1. What is the main purpose of using a soil test?

A. To determine nutrient levels and pH for optimal plant growth

B. To measure the amount of sunlight in the garden

C. To assess the color of the soil

D. To evaluate insect populations in the soil

The primary purpose of a soil test is to determine nutrient levels and pH for optimal plant growth. This process is essential because plants require a specific balance of nutrients and an appropriate pH level to thrive. By testing the soil, gardeners and farmers can identify deficiencies or excesses of vital nutrients such as nitrogen, phosphorus, and potassium, as well as other micronutrients. Additionally, the pH level of the soil affects the availability of these nutrients to plants. If the pH is too high or too low, certain nutrients may become unavailable or less accessible to the plants' root systems. Understanding the soil's nutrient profile and pH allows for informed decision-making regarding soil amendments, fertilization, and overall soil management, ultimately contributing to healthier plants and better yields. This scientific approach to soil management ensures that plants are provided with the optimal growing conditions they need, which might not be evident from visual inspections. Other options propose unrelated aspects of soil or gardening, such as measuring sunlight, assessing color, or evaluating insect populations, which, while important in horticulture, do not directly influence the needed conditions for plant growth as nutrient levels and pH do.

2. Auxiliary or lateral buds are found at the base of which part of the plant?

A. Stem

B. Leaf

C. Flower

D. Root

Auxiliary or lateral buds form at the base of the leaf petiole, which is the stalk that attaches the leaf to the stem. These buds are important as they have the potential to develop into new shoots or branches, allowing for the growth of the plant in a lateral direction. By being located at the leaf's base, these buds are positioned optimally to take advantage of sunlight and resources as they expand. This feature plays a crucial role in the plant's ability to grow and thrive in its environment, contributing to its overall structural and functional complexity.

3. Which rates are typically lower for companies that prioritize safety?

A. Tax rates

B. Fuel costs

C. Insurance rates

D. Employee wages

Companies that prioritize safety often see lower insurance rates as a direct result of their commitment to maintaining a safe working environment. Insurance companies evaluate the risk associated with insuring a business, and when a company demonstrates effective safety protocols and a low incidence of workplace accidents or injuries, it is considered a lower-risk entity. This reduced risk translates into lower premiums for their insurance coverage, particularly for workers' compensation and liability insurance. In contrast, tax rates, fuel costs, and employee wages are generally not influenced as directly by a company's safety measures. Tax rates are often determined by jurisdiction and income levels, while fuel costs can fluctuate based on market conditions. Employee wages are typically dictated by job roles and market demand, rather than the company's safety practices. Thus, prioritizing safety most directly leads to reductions in insurance costs.

4. What is the duration of the FNGLA Certified Horticultural Professional Exam?

A. 1 hour

B. 2 hours

C. 3 hours

D. 4 hours

The duration of the FNGLA Certified Horticultural Professional Exam is three hours. This timeframe is designed to provide candidates with adequate opportunity to thoroughly read and respond to all the questions, which may cover a range of topics relevant to horticulture practices. The three-hour exam duration reflects the complexity and depth of knowledge required to ensure candidates are well-prepared for roles in the horticultural industry. Sufficient time is essential for individuals to think critically about their answers, particularly given the variety of subject matter that the exam encompasses.

5. What is the process called when cells divide by splitting in half?

A. Meiosis

B. Mitosis

C. Cytokinesis

D. Fission

The process where cells divide by splitting in half is known as fission. In the context of the given choices, while mitosis refers specifically to the process of nuclear division in eukaryotic cells, fission is a simpler form of cell division typically associated with prokaryotic organisms, such as bacteria. However, the term is often used to describe the concept of a cell's division resulting in two daughter cells. Cytokinesis is the process that typically follows mitosis, where the cytoplasm of a parent cell divides into two daughter cells, completing the whole cell division process. Meiosis, on the other hand, is a specialized type of cellular division that reduces the chromosome number by half to produce gametes. In this instance, if the question is generally asking about the simplest form of cell division that results in two equal halves, then fission would be the most accurate term. However, it is important to also note that in the context of eukaryotic cells, the process of mitosis is closely related and involves precise steps leading up to the division of the nucleus and consequently the entire cell.

6. True or False: Chain saw operators should never work alone.

A. True

B. False

Chain saw operators should never work alone due to the inherent risks and dangers associated with operating this powerful equipment. Having another person present can significantly enhance safety by providing immediate assistance in case of accidents or emergencies. In the event of a mishap, such as an injury or equipment malfunction, a second operator can call for help, provide first aid, or even help stabilize the situation to prevent further injury. Additionally, working in pairs allows for better communication and support when tackling complicated tasks, such as felling large trees or working in hazardous conditions. It's also a precautionary measure against potential environmental risks like falling branches or unpredictable elements in the surroundings. This practice is in line with industry safety standards and recommendations aimed at minimizing risks and ensuring a safer working environment for all involved.

7. Accident investigation reports must be submitted to the company safety coordinator within how many hours of the accident?

A. 12 hours

B. 24 hours

C. 36 hours

D. 48 hours

Submitting accident investigation reports to the company safety coordinator within 24 hours of the incident is crucial for several reasons. Timely reporting allows for immediate identification of safety concerns and potential hazards that may have contributed to the accident. It enables the company to respond promptly to the situation, which can include implementing corrective measures, ensuring the safety of all employees, and complying with regulatory requirements. Furthermore, a quick turnaround in reporting helps to preserve accurate details about the accident while witnesses' memories are still fresh. This can be critical for improving workplace safety protocols and avoiding future incidents. A delay beyond this timeframe might hinder the effectiveness of the investigation and the subsequent actions that need to be taken.

8. What type of protection is often neglected in safety programs?

A. Eye

B. Hearing

C. Hand

D. Respiratory

Hearing protection is often neglected in safety programs for several reasons. Many individuals may not perceive noise exposure as a significant risk compared to other hazards such as physical injuries from machinery or falling objects. There is a general lack of awareness about the long-term effects of noise exposure, which can lead to irreversible hearing loss over time. Unlike visible injuries, the effects of hearing loss may be gradual and less immediately apparent, causing people to underestimate the necessity of hearing protection. Furthermore, hearing protection devices, such as earplugs or earmuffs, may not be as readily accessible or prioritized in the safety equipment inventory. Training and education regarding the importance of protecting hearing are also less frequently emphasized than other safety practices. As a result, without proper programs focused on hearing conservation and awareness, employees might be less likely to use the necessary protective equipment consistently. This neglect can lead to long-term health implications for workers in noisy environments, making it critical for safety programs to address hearing protection more comprehensively.

9. What is the primary energy molecule used by plants during the food production process?

A. ATP

B. ADP

C. Glucose

D. Sucrose

The primary energy molecule used by plants during the food production process is ATP (adenosine triphosphate). ATP serves as the energy currency of the cell, providing the energy required for various biochemical reactions, including those involved in photosynthesis and cellular respiration. During photosynthesis, plants convert light energy into chemical energy, which is stored as glucose. While glucose is essential for energy storage and serves as a primary energy source for cellular respiration, the immediate energy for cellular processes comes from the breakdown of ATP. ATP is generated during the light-dependent reactions of photosynthesis and used in the light-independent reactions (Calvin cycle) to synthesize glucose. In contrast, ADP (adenosine diphosphate) is a product formed when ATP loses one of its phosphate groups, thereby releasing energy that can be utilized by the cell. Sucrose is a disaccharide that plants produce for transport and energy storage but is not directly involved in energy transfer processes on a cellular level like ATP. Thus, ATP is the correct answer to signify the primary energy molecule used by plants during the food production process.

10. What condition can be caused by overwatering plants?

A. Pest infestation

B. Fungal infection

C. Root rot

D. Leaf scorch

Overwatering plants can lead to root rot, which is a serious condition where the roots of the plant begin to decay. This occurs because excessive moisture in the soil creates an environment that is conducive to the growth of harmful pathogens, particularly fungi. The roots are suffocated and their ability to absorb water and nutrients is severely compromised, leading to a decline in plant health. In contrast, while pest infestation and fungal infection can be associated with overwatering, they are not direct consequences and can arise from various other factors as well. Leaf scorch typically occurs due to environmental stress, such as drought or high temperatures, rather than being related to excess water. Thus, root rot is the most appropriate condition linked directly to overwatering, highlighting the importance of proper watering practices for healthy plant growth.