Admission Test for Dental Hygiene (ATDH) Practice (Sample)

Study Guide

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Questions

1. Which dental hygiene practice helps to freshen breath?

A. Brushing only

B. Flossing only

C. Using mouthwash

D. All of the above

2. In the context of gas laws, what is the Kelvin scale primarily used for?

A. To measure pressure.

B. To determine absolute temperature.

C. To quantify gas volume.

D. To correlate density with pressure.

3. How would you describe an allusion in literature?

A. A direct quotation from another work

B. A reference to a well-known figure, place, or event

C. A type of rhetorical question

D. A depiction of a future event

4. What is the main function of vacuoles in plant cells?

A. Photosynthesis

B. Energy production

C. Storage and water regulation

D. Cellular signaling

5. What is the purpose of fluoride treatments?

A. To whiten teeth

B. To strengthen tooth enamel and reduce the risk of cavities

C. To treat gum disease

D. To clean teeth of tartar

6. How is an oxymoron defined in literature?

A. A humorous exaggeration

B. A contradictory combination of words

C. A repetitive phrase for emphasis

D. A comparison between two unrelated things

7. What is the recommended concentration of fluoride for professional application?

A. 0.5% Sodium Fluoride

B. 1.23% Acidulated Phosphate Fluoride

C. 2.0% Sodium Fluoride

D. 0.3% Topical Fluoride

8. What role do lysosomes play in a cell?

A. Energy production

B. Protein destruction

C. Lipid detoxification

D. DNA storage

9. What is the purpose of an epigraph in a literary work?

A. To confuse the reader

B. To introduce themes through a famous quotation

C. To summarize the plot

D. To describe characters

10. What is a common sign of periodontal disease?

A. Bleeding gums during brushing

B. Increased teeth whiteness

C. Absence of tooth sensitivity

D. Pain when chewing hard foods

Answers

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

Explanations

1. Which dental hygiene practice helps to freshen breath?

A. Brushing only

B. Flossing only

C. Using mouthwash

D. All of the above

Freshening breath is a multifaceted approach that is best achieved through a combination of practices. Brushing plays a critical role by removing food particles and plaque from the teeth and tongue. This action helps to minimize the buildup of bacteria that can contribute to bad breath. Flossing is equally important as it cleans between the teeth, where a toothbrush cannot reach. This helps to remove food debris and plaque from interproximal areas, thereby reducing odor-causing bacteria. Using mouthwash can also contribute significantly to freshening breath. Many mouthwashes contain antimicrobial agents that kill bacteria, as well as breath-freshening ingredients that mask odors. Together, these practices provide a comprehensive strategy for maintaining oral hygiene and promoting fresh breath. Relying on any single method alone may not be sufficient to achieve the best results, thus making the combined approach the most effective way to address breath freshness.

2. In the context of gas laws, what is the Kelvin scale primarily used for?

A. To measure pressure.

B. To determine absolute temperature.

C. To quantify gas volume.

D. To correlate density with pressure.

The Kelvin scale is primarily used to determine absolute temperature, which is a critical concept in the study of gas laws. Absolute temperature is important because gas behavior is greatly influenced by temperature, and Kelvin provides a scale that begins at absolute zero, the point at which molecular motion ceases. This scale allows for accurate calculations and comparisons in thermodynamics and kinetic theory, where temperature must be expressed in an absolute form rather than a relative scale like Celsius or Fahrenheit. Using the Kelvin scale is essential in equations like the Ideal Gas Law and others, as it enables the prediction of gas behavior under various conditions of pressure and volume without encountering negative values that can occur in other temperature scales. Therefore, the use of the Kelvin scale facilitates a clearer understanding and application of gas laws in scientific and practical contexts.

3. How would you describe an allusion in literature?

A. A direct quotation from another work

B. A reference to a well-known figure, place, or event

C. A type of rhetorical question

D. A depiction of a future event

An allusion in literature is characterized by a reference to a well-known figure, place, or event, which enriches the text by drawing on a shared cultural or historical context. This technique invites readers to make connections between the work at hand and the alluded subject, enhancing the meaning and emotional impact. For instance, if an author refers to "Achilles' heel," this reference conjures up associations with Greek mythology and connotes themes of vulnerability. This differs from options focusing on direct quotations or rhetorical questions, as those elements serve distinct functions in texts. A direct quotation involves verbatim repetition of another text, while a rhetorical question is used to provoke thought rather than elicit an answer. Similarly, a depiction of a future event fits within the realm of foreshadowing or prophecy rather than being an allusion. Thus, the defining characteristic of an allusion is the indirect reference to something widely recognized, which engages readers on a deeper intellectual level.

4. What is the main function of vacuoles in plant cells?

A. Photosynthesis

B. Energy production

C. Storage and water regulation

D. Cellular signaling

The main function of vacuoles in plant cells is storage and water regulation. Vacuoles are large, membrane-bound organelles that serve various roles in maintaining cellular homeostasis. They primarily store essential substances such as nutrients, ions, and waste products. This storage capacity helps ensure that the plant cell has a readily available supply of these materials as needed. Additionally, vacuoles play a critical role in regulating water balance within the cell. By controlling the amount of water they hold, vacuoles help maintain turgor pressure, which is vital for the structural integrity of plant cells. This pressure helps keep the plant rigid and upright. When a plant cell takes in water, the vacuole can expand, pushing against the cell wall and providing the necessary support. Overall, vacuoles are fundamental for both the storage of key substances and the regulation of water, making them essential for the functions and health of plant cells.

5. What is the purpose of fluoride treatments?

A. To whiten teeth

B. To strengthen tooth enamel and reduce the risk of cavities

C. To treat gum disease

D. To clean teeth of tartar

Fluoride treatments are primarily aimed at strengthening tooth enamel and reducing the risk of cavities. Fluoride is a mineral that helps to remineralize and reinforce the external layer of teeth, which can be weakened by acids produced by bacteria in the mouth. This process makes the enamel more resistant to decay, effectively lowering the likelihood of cavities forming. While fluoride can contribute to overall dental health, it does not serve the purpose of whitening teeth as some substances do. Additionally, treating gum disease involves different therapeutic approaches, such as scaling and root planing, which target the gums and supporting structures of the teeth rather than the enamel itself. Lastly, cleaning teeth of tartar is a mechanical process requiring professional dental tools, whereas fluoride treatments are focused on chemical reinforcement of tooth structure. Thus, the primary goal of fluoride treatments is their role in cavity prevention through enamel strengthening.

6. How is an oxymoron defined in literature?

A. A humorous exaggeration

B. A contradictory combination of words

C. A repetitive phrase for emphasis

D. A comparison between two unrelated things

An oxymoron is defined as a contradictory combination of words that brings together seemingly opposing ideas or terms to create a new or unique meaning. This literary device is often used to provoke thought, create paradox, or highlight a particular quality or emotion in a more striking way. For example, terms such as "bittersweet," "deafening silence," and "jumbo shrimp" illustrate how two opposite or contradictory concepts can coexist, inviting readers to consider the complexity of a situation or feeling. This nuanced interplay is what distinguishes an oxymoron from other rhetorical devices like hyperbole, which is an exaggerated statement for effect, or metaphor, which involves a comparison between unrelated things. By using oxymorons, writers can convey deeper meanings and provoke a stronger emotional response from the audience.

7. What is the recommended concentration of fluoride for professional application?

A. 0.5% Sodium Fluoride

B. 1.23% Acidulated Phosphate Fluoride

C. 2.0% Sodium Fluoride

D. 0.3% Topical Fluoride

The recommended concentration of fluoride for professional application is 1.23% Acidulated Phosphate Fluoride. This concentration is considered effective for promoting remineralization of enamel and preventing dental caries. Acidulated phosphate fluoride has a lower pH, which enhances its ability to penetrate enamel and is beneficial for patients, especially those at a higher risk of caries. This specific formulation is commonly used in professional settings due to its efficacy in enhancing fluoride uptake into dental tissues. While other concentrations and formulations, such as 0.5% Sodium Fluoride and 2.0% Sodium Fluoride, are also used in different contexts, they do not provide the same level of efficacy for caries prevention as the 1.23% Acidulated Phosphate Fluoride. In addition, the 0.3% Topical Fluoride is typically used in over-the-counter products and is less concentrated, making it less effective in a professional application setting where higher fluoride concentrations are desired for optimal results.

8. What role do lysosomes play in a cell?

A. Energy production

B. Protein destruction

C. Lipid detoxification

D. DNA storage

Lysosomes play a crucial role in the cell as the primary organelles responsible for the degradation and recycling of cellular waste, including damaged organelles, misfolded proteins, and other macromolecules. They are often referred to as the "digestive system" of the cell due to their content of hydrolytic enzymes that can break down different types of biomolecules. This process of protein destruction is essential for maintaining cellular health and homeostasis, enabling the cell to efficiently remove debris and recycle components to be reused in new cellular functions. In contrast, energy production is primarily handled by mitochondria, lipid detoxification occurs in the smooth endoplasmic reticulum, and DNA storage is managed by the nucleus. Each of these options reflects distinct cellular functions that do not pertain to the lysosomal role.

9. What is the purpose of an epigraph in a literary work?

A. To confuse the reader

B. To introduce themes through a famous quotation

C. To summarize the plot

D. To describe characters

The purpose of an epigraph in a literary work is to introduce themes through a famous quotation. An epigraph often sets the tone for the narrative or suggests underlying ideas that the reader should consider as they engage with the text. By presenting a relevant quotation, authors can evoke a particular mood or provide insight into the broader thematic concerns of the work. This device serves to enrich the reader's understanding and provides a lens through which to interpret the subsequent material, linking the text to larger literary traditions or philosophical ideas. Overall, an epigraph can act as a key that unlocks deeper meanings within the narrative, guiding the reader's interpretation from the outset.

10. What is a common sign of periodontal disease?

A. Bleeding gums during brushing

B. Increased teeth whiteness

C. Absence of tooth sensitivity

D. Pain when chewing hard foods

A common sign of periodontal disease is bleeding gums during brushing. This symptom occurs as the gum tissue becomes inflamed and irritated due to the accumulation of plaque and tartar, leading to gingivitis or more advanced periodontal conditions. Healthy gums should not bleed, so any bleeding when brushing or flossing indicates that there might be an underlying issue that can necessitate further evaluation and treatment. Increased teeth whiteness is not associated with periodontal disease; rather, it may be a result of good oral hygiene or whitening products. The absence of tooth sensitivity tends to indicate healthier dental conditions, while periodontal disease often causes sensitivity due to the loss of supporting structures around the teeth. Pain when chewing hard foods can be a symptom of other dental issues, such as cavities or cracked teeth, but is not specifically a hallmark of periodontal disease.