

HOSA DENTAL SCIENCE PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

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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

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- 1. What is the common role of composite restoration in dentistry?**
 - A. To extract decayed teeth
 - B. To restore the shape and function of damaged teeth
 - C. To fill cavities with metal
 - D. To perform dental cleanings
- 2. Which type of dentin is formed before the completion of the apical foramen and constitutes the bulk of the tooth?**
 - A. Secondary Dentin
 - B. Primary Dentin
 - C. Tertiary Dentin
 - D. Peritubular Dentin
- 3. For how long must an employer maintain employee records on exposures and other medical records?**
 - A. 5 years after termination
 - B. The duration of employment plus 30 years
 - C. Indefinitely
 - D. Until the employee requests their removal
- 4. Which of these nerves is NOT a branch of the maxillary nerve?**
 - A. Infraorbital
 - B. Pterygopalatine
 - C. Buccal
 - D. Zygomatic
- 5. Which virus is responsible for chickenpox?**
 - A. Influenza virus
 - B. Herpes simplex virus
 - C. Varicella-Zoster virus
 - D. Respiratory syncytial virus

- 6. Which type of shank is NOT typically associated with a contra-angle handpiece?**
- A. Latch-type shank
 - B. Friction grip shank
 - C. Standard shank
 - D. Hexagonal shank
- 7. What component is critical in a local anesthetic syringe tray setup for injecting anesthetic?**
- A. Needle stick protector
 - B. Long needle
 - C. Short needle
 - D. Anesthetic cartridge
- 8. How many coats are generally needed for varnishes?**
- A. 1
 - B. 2
 - C. 3
 - D. 4
- 9. In what way does the air abrasion unit assist in preparing occlusal surfaces?**
- A. By polishing with a prophy cup
 - B. By removing decay efficiently
 - C. By using for class I or class VI cavity preparation
 - D. By providing cooling with sterile water
- 10. What is the primary function of a mouth mirror in dental practice?**
- A. To provide illumination
 - B. To retract the tongue
 - C. To examine teeth for fractures
 - D. To provide indirect vision within the mouth

Answers

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

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Explanations

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1. What is the common role of composite restoration in dentistry?

- A. To extract decayed teeth
- B. To restore the shape and function of damaged teeth**
- C. To fill cavities with metal
- D. To perform dental cleanings

Composite restorations are primarily used to restore the shape and function of damaged teeth. This type of dental material is favored for its aesthetic qualities, as it can be closely matched to the natural color of the surrounding teeth, allowing for a more natural and less noticeable restoration. When a tooth is compromised due to decay, cracks, or fractures, composite materials can be applied to rebuild the tooth structure, thereby restoring its ability to bite and chew effectively. The use of composites serves a crucial role in both aesthetic and functional rehabilitation, making them an integral part of modern restorative dentistry. The versatility of composites allows them to be used in a variety of situations, from small cavities to more extensive restorations, enhancing not only the appearance of the tooth but also its structural integrity. This restorative capability is fundamental in dental practice as it helps to prolong the life of natural teeth and maintain oral health.

2. Which type of dentin is formed before the completion of the apical foramen and constitutes the bulk of the tooth?

- A. Secondary Dentin
- B. Primary Dentin**
- C. Tertiary Dentin
- D. Peritubular Dentin

Primary dentin is the type of dentin that is formed before the completion of the apical foramen and represents the major portion of the tooth's structure. It is laid down during the development of the tooth and contributes to the overall shape and size of the tooth as it develops. Primary dentin is formed by odontoblasts and is characterized by a regular pattern of tubules, which are critical for the nutrition and health of the dental pulp. In contrast, secondary dentin is formed after the completion of the tooth's development and continues to be produced throughout life but at a much slower rate. Tertiary dentin, also known as reparative dentin, is formed in response to stimuli such as caries or trauma and is laid down in a more irregular fashion. Peritubular dentin refers to the dentin that surrounds the dentinal tubules and is not a main category of dentin formation like the others. In summary, primary dentin's role in the overall structure and bulk of the tooth is essential during early development, making it the correct answer in this context.

3. For how long must an employer maintain employee records on exposures and other medical records?

- A. 5 years after termination
- B. The duration of employment plus 30 years**
- C. Indefinitely
- D. Until the employee requests their removal

The correct response reflects the guidelines established by the Occupational Safety and Health Administration (OSHA) regarding the maintenance of employee records related to exposures and medical histories. Employers are required to keep these records for the duration of employment plus an additional 30 years. This extended timeframe is critical because it allows for monitoring of any long-term health effects that might arise from occupational exposures. Keeping records for 30 years after the end of employment provides a safeguard for former employees, ensuring they can access documentation that may be vital for future health assessments, compensation claims, or legal matters related to workplace exposures. This requirement underlines the importance of monitoring workplace hazards and protecting employee health in the long term. The other options do not align with OSHA regulations. Maintaining records for just five years after termination may not allow adequate time for potential long-term health effects to manifest, while indefinite maintenance of records may not be practical or required. The option of removing records at an employee's request does not provide the necessary protection for employees who may not realize the potential implications of their exposure until much later.

4. Which of these nerves is NOT a branch of the maxillary nerve?

- A. Infraorbital
- B. Pterygopalatine
- C. Buccal**
- D. Zygomatic

The buccal nerve is not a branch of the maxillary nerve; rather, it is a branch of the mandibular nerve, which is the third division of the trigeminal nerve (cranial nerve V). The maxillary nerve is the second division of the trigeminal nerve and gives rise to several important branches that supply sensory innervation to various structures of the face. The infraorbital nerve is a branch of the maxillary nerve and travels through the infraorbital foramen to provide sensation to the lower eyelid, the cheek, and the upper lip. Similarly, the pterygopalatine nerve and the zygomatic nerve are also branches of the maxillary nerve. The pterygopalatine nerve, for instance, provides sensory innervation to the nasal cavity and palatine glands, while the zygomatic nerve connects to areas supplying the skin over the cheek. Thus, distinguishing these branches is crucial in understanding the anatomy and pathways of maxillary nerve innervation, making it clear that the buccal nerve is outside this context.

5. Which virus is responsible for chickenpox?

- A. Influenza virus
- B. Herpes simplex virus
- C. Varicella-Zoster virus**
- D. Respiratory syncytial virus

The virus responsible for chickenpox is the Varicella-Zoster virus. This virus is a member of the herpesvirus family and is specifically known for causing chickenpox (varicella) in initial infections. After the primary infection, the virus remains dormant in the body and can reactivate later in life to cause shingles (herpes zoster). Understanding the nature of the Varicella-Zoster virus is crucial in the context of infectious diseases, as it highlights the importance of vaccination and the potential for reactivation. Vaccination against chickenpox has significantly reduced the incidence of the disease and its complications. Other viruses mentioned, such as the influenza virus, herpes simplex virus, and respiratory syncytial virus, are associated with different diseases and do not cause chickenpox. The influenza virus is primarily responsible for respiratory infections known as the flu, herpes simplex virus causes oral and genital herpes, and respiratory syncytial virus is mainly associated with respiratory infections in infants and young children. Each virus has its own distinct characteristics and disease implications, setting them apart from the Varicella-Zoster virus.

6. Which type of shank is NOT typically associated with a contra-angle handpiece?

- A. Latch-type shank
- B. Friction grip shank
- C. Standard shank
- D. Hexagonal shank**

A hexagonal shank is not typically associated with a contra-angle handpiece, primarily because it is designed for different types of instruments and applications. Contra-angle handpieces are known for their ability to provide operator comfort and visibility while working within a patient's oral cavity. The latch-type shank is designed to work securely with the contra-angle handpiece, allowing for a firm grip during dental procedures. Similarly, the friction grip shank is also compatible, as it is designed to fit tightly within the handpiece to ensure stability when high-speed rotation is required. Standard shank instruments can sometimes be used with various handpieces but are not specifically made for contra-angle applications. In contrast, the hexagonal shank is generally utilized in handpieces that require a different attachment method, making it unsuitable for use with a contra-angle handpiece that relies on the specific designs of latch-type or friction grip shanks for optimal function.

7. What component is critical in a local anesthetic syringe tray setup for injecting anesthetic?

- A. Needle stick protector
- B. Long needle
- C. Short needle

D. Anesthetic cartridge

In the context of a local anesthetic syringe tray setup, the anesthetic cartridge is essential because it contains the local anesthetic solution that is to be delivered to the patient. This cartridge is specifically designed to fit within the syringe's mechanism and ensure a secure and sterile connection for the injection process. The composition of the anesthetic within the cartridge is crucial for achieving the desired numbing effect, making it the pivotal component in any local anesthesia procedure. While needles, whether long or short, play an important part in the administration process, they are not the source of the anesthetic agent itself. They are delivery mechanisms that facilitate the injection, but without the anesthetic cartridge, there would be no anesthetic to deliver. Similarly, a needle stick protector is important for safety to prevent accidental needle sticks, but it does not contribute to the actual anesthetic delivery. Therefore, the anesthetic cartridge is the critical component that directly impacts the effectiveness of local anesthesia during dental procedures.

8. How many coats are generally needed for varnishes?

- A. 1
- B. 2**
- C. 3
- D. 4

Varnishes typically require two coats to achieve optimal protection and finish. The first coat serves as a primer, providing a base that helps the subsequent coat adhere better. This initial layer also works to fill in any imperfections on the surface, ensuring a smoother finish. The second coat is applied after the first has dried and is crucial for enhancing the depth of color and gloss, as well as providing added durability to the surface. This two-coat application ensures that the varnish effectively protects the underlying materials from moisture, wear, and environmental factors, achieving a balanced and aesthetically pleasing result. A single coat may not provide sufficient coverage or protection, while more than two coats can lead to issues such as bubbling or uneven drying, as well as wasting materials and time. Thus, the two-coat system is recognized as the standard practice in various applications, including dental materials where varnish may be used for sealing and protecting tooth surfaces.

9. In what way does the air abrasion unit assist in preparing occlusal surfaces?

- A. By polishing with a prophy cup
- B. By removing decay efficiently
- C. By using for class I or class VI cavity preparation**
- D. By providing cooling with sterile water

The air abrasion unit is primarily used in dentistry to prepare tooth surfaces, particularly in the context of cavity preparation. Its function involves the use of a stream of abrasive particles propelled by air to remove decayed tooth structure effectively and create a smooth surface for restorative materials. In the context of preparing occlusal surfaces, the unit is especially beneficial for Class I and Class VI cavities. Class I cavities are found on the chewing surfaces of molars and premolars, while Class VI cavities occur on the incisal edge of anterior teeth or the cusp tips of posterior teeth. The air abrasion technique allows for precise and conservative removal of decayed tissue, making it particularly suited for these types of cavities. Using air abrasion instead of traditional drilling methods can also minimize discomfort for the patient, as it typically requires less anesthesia and creates less vibration and noise. This modern approach enhances the efficiency of preparing cavities, leading to improved patient experiences and outcomes in dental care. In contrast, polishing with a prophy cup does not alter the structure of the tooth and is typically used for cleaning rather than preparing the tooth for restoration. Removing decay efficiently is a characteristic of air abrasion but does not specify the type of cavity preparation it is most suited for. Providing cooling with sterile water

10. What is the primary function of a mouth mirror in dental practice?

- A. To provide illumination
- B. To retract the tongue
- C. To examine teeth for fractures
- D. To provide indirect vision within the mouth**

The primary function of a mouth mirror in dental practice is to provide indirect vision within the mouth. This tool is essential for dentists as it allows them to see areas that are difficult to view directly, such as the back molars or the lingual surfaces of teeth. By using a mouth mirror, dental professionals can effectively inspect the oral cavity for any signs of decay, gum disease, or abnormalities that may not be easily accessible during a direct line of sight. In addition to aiding visibility, the mirror can also facilitate better working conditions by allowing dentists to position themselves advantageously, thereby improving their ability to diagnose and treat dental issues. This context highlights the mouth mirror's role as a critical instrument in ensuring comprehensive oral examinations and promoting overall patient care in dentistry.

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://hosadentalscience.examzify.com>

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

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