

American Board of Orthodontics (ABO) 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

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- 1. What is considered the gold standard diagnostic tool for obstructive sleep apnea (OSA)?**
 - A. CT Scan**
 - B. Polysomnography (PSG)**
 - C. MRI Scan**
 - D. X-ray**

- 2. What is the major systemic level difference between IV bisphosphonates and oral bisphosphonates?**
 - A. 6 times**
 - B. 12 times**
 - C. 8 times**
 - D. 10 times**

- 3. During orthodontic treatment, what is the primary effect of excessive force on the periodontal ligament?**
 - A. Bone remodeling**
 - B. Hyalinization**
 - C. Increased vascularity**
 - D. Minimization of pain**

- 4. What is the normal annual effective dose from background radiation?**
 - A. 1 mSv**
 - B. 3 mSv**
 - C. 5 mSv**
 - D. 10 mSv**

- 5. Which of the following factors does NOT influence the stiffness of orthodontic wires?**
 - A. Material composition**
 - B. Diameter of the wire**
 - C. Length of the wire**
 - D. Color of the wire**

- 6. What is the relationship between inflammatory resorption and the root surface?**
- A. It occurs on the enamel surface**
 - B. It is restricted to the crown area**
 - C. It affects the root surface**
 - D. It only occurs in the pulp chamber**
- 7. How can hopeless teeth be utilized during orthodontic treatment?**
- A. As a stepping stone for implant placement**
 - B. As anchorage prior to extraction**
 - C. For partial dentures placement**
 - D. As a temporary support device**
- 8. How do odontoclasts differ from osteoclasts?**
- A. Odontoclasts are larger and more numerous**
 - B. Odontoclasts resorb dental hard tissue**
 - C. Osteoclasts form dental tissue**
 - D. Odontoclasts are found only in cartilage**
- 9. What is the angle of maxillary advancement in orthodontic treatments?**
- A. Neutral position**
 - B. -6 degrees**
 - C. 0 degrees**
 - D. Forward rotation**
- 10. Which method is NOT recommended to improve the eruption path of canines?**
- A. Extract C,D,E**
 - B. Increased arch space**
 - C. Expansion**
 - D. Extract A,B**

Answers

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

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Explanations

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1. What is considered the gold standard diagnostic tool for obstructive sleep apnea (OSA)?

- A. CT Scan
- B. Polysomnography (PSG)**
- C. MRI Scan
- D. X-ray

Polysomnography (PSG) is recognized as the gold standard diagnostic tool for obstructive sleep apnea (OSA) due to its comprehensive and detailed nature. PSG is an overnight sleep study that records various physiological parameters such as brain wave activity, oxygen levels, heart rate, breathing patterns, and eye movements while the patient sleeps. This multi-faceted approach allows for the accurate assessment of sleep stages and identification of any abnormalities that might indicate OSA, including apneas, hypopneas, and oxygen desaturation events. The significance of PSG lies in its ability to provide a complete picture of a patient's sleep architecture and respiratory function during sleep. This is crucial for diagnosing OSA because the disorder is characterized by repetitive episodes of upper airway obstruction during sleep, which affect breathing and oxygenation. Other diagnostic tools, such as CT scans and MRIs, primarily serve to visualize anatomical structures and assess for conditions that may contribute to OSA but do not provide the same level of information about sleep quality and respiratory disturbances as PSG. X-rays may help evaluate structural issues but lack the capability to gauge functional sleep-related parameters. Hence, while these imaging modalities can be supportive in understanding clinical presentations, they do not replace the detailed analysis afforded by polysomnography in the context

2. What is the major systemic level difference between IV bisphosphonates and oral bisphosphonates?

- A. 6 times
- B. 12 times**
- C. 8 times
- D. 10 times

The major systemic level difference between intravenous (IV) bisphosphonates and oral bisphosphonates lies in their bioavailability and absorption rates. IV bisphosphonates achieve much higher systemic concentrations compared to oral bisphosphonates, primarily due to the bypassing of the gastrointestinal tract with intravenous administration. Oral bisphosphonates have a much lower bioavailability, often less than 1%, because they must pass through the digestive system where a significant amount can be lost to metabolism and absorption issues. The choice that indicates a systemic level difference of 12 times reflects the enhanced efficiency of IV administration over oral forms. This significant difference in concentration is crucial when considering the pharmacological effects, dosing regimens, and treatment plans for conditions such as osteoporosis, Paget's disease, or cancer-related bone disease, where higher drug levels may be necessary for effective therapy. Understanding this difference in systemic levels is essential for making informed decisions regarding the treatment options for patients requiring bisphosphonate therapy.

3. During orthodontic treatment, what is the primary effect of excessive force on the periodontal ligament?

- A. Bone remodeling
- B. Hyalinization**
- C. Increased vascularity
- D. Minimization of pain

The primary effect of excessive force on the periodontal ligament is hyalinization. When orthodontic forces are applied to teeth, they create changes in the periodontal ligament and surrounding structures. Hyalinization refers to the process where the periodontal ligament fibers are compressed to the point that they undergo a change in their biological makeup, leading to a glassy, homogeneous appearance. This glassy area forms as a result of tissue that becomes necrotic when subjected to intense and prolonged forces, and it indicates a failure of the customary remodeling processes. Instead of normal bone remodeling occurring, which involves the activation of osteoclasts and osteoblasts to form and resorb bone, hyalinization can halt these processes. This stagnant condition can hinder proper alignment and movement of the teeth, potentially prolonging treatment time and causing discomfort. While concepts such as bone remodeling and increased vascularity are important in orthodontic treatment, excessive force leads to hyalinization, clearly illustrating a disruption in the normal physiological response of the periodontal ligament and alveolar bone. Minimization of pain is not an effect of excessive force; rather, it can increase discomfort and other complications during the treatment process. Therefore, hyalinization is a critical factor to understand in the context of how excessive forces

4. What is the normal annual effective dose from background radiation?

- A. 1 mSv
- B. 3 mSv**
- C. 5 mSv
- D. 10 mSv

The normal annual effective dose from background radiation is approximately 3 mSv (millisieverts). This figure represents the average exposure an individual receives from natural sources of radiation, which include cosmic radiation, terrestrial radiation, and internal radiation from substances within the human body. Understanding the sources of background radiation is crucial. Cosmic radiation comes from outer space and varies based on altitude and geographic location. Terrestrial radiation arises from radioactive materials in the earth, such as uranium and radon, which contribute significantly to overall exposure. Additionally, internal radiation is a result of naturally occurring radioactive isotopes in the body, such as potassium-40 and carbon-14. The other figures represented in the choices do not align with the typical estimates of background radiation exposure. A rate of 1 mSv, for instance, is considerably lower than the average annual exposure, while values like 5 mSv and 10 mSv exceed the average and reflect either localized sources or additional medical exposure rather than average background levels.

5. Which of the following factors does NOT influence the stiffness of orthodontic wires?

- A. Material composition**
- B. Diameter of the wire**
- C. Length of the wire**
- D. Color of the wire**

The stiffness of orthodontic wires is primarily influenced by factors such as material composition, diameter, and length. Material composition plays a significant role because different materials, like stainless steel, nickel-titanium, or newer alloys, have varying elastic properties that directly impact how much force a wire can withstand before deforming. The diameter of the wire is important as well; generally, a thicker wire will exhibit greater stiffness than a thinner one, allowing it to provide more resistance to bending forces. Length also affects stiffness: a shorter wire can be stiffer compared to a longer wire of the same diameter and material, since the longer the wire, the more it can flex under pressure. In contrast, the color of the wire does not influence its mechanical properties such as stiffness. While different colors can be chosen for aesthetic reasons, they do not change how the wire behaves physically when forces are applied. Thus, the correct answer illustrates a factor that has no impact on the wire's stiffness.

6. What is the relationship between inflammatory resorption and the root surface?

- A. It occurs on the enamel surface**
- B. It is restricted to the crown area**
- C. It affects the root surface**
- D. It only occurs in the pulp chamber**

Inflammatory resorption is a dental condition primarily associated with the root surface of a tooth. This phenomenon occurs when the periodontal ligament and surrounding tissues experience inflammation, often due to trauma, infection, or orthodontic treatment. During this process, the osteoclasts are activated, leading to the resorption of the root surface, which can compromise the tooth's stability and longevity. The root surface is typically the site where resorption patterns manifest, as it is directly in contact with the periodontal ligament and associated inflammatory processes. Unlike enamel, which is more resistant to resorption due to its mineralized and protective characteristics, or areas restricted solely to the crown or pulp chamber, the root is susceptible to the effects of inflammatory factors. Understanding this relationship is crucial in orthodontics, as forces applied to the teeth can create a response in the surrounding tissues, potentially resulting in root resorption if the inflammatory process is not properly managed.

7. How can hopeless teeth be utilized during orthodontic treatment?

- A. As a stepping stone for implant placement**
- B. As anchorage prior to extraction**
- C. For partial dentures placement**
- D. As a temporary support device**

In orthodontic treatment, hopeless teeth, which are teeth deemed non-restorable or at high risk of future loss, can be quite valuable in certain clinical contexts. Utilizing these teeth for anchorage prior to extraction is particularly important during the initial phases of treatment. This process allows for the movement of adjacent teeth while maintaining some level of stability provided by the hopeless teeth. By employing hopeless teeth as anchorage, orthodontists can achieve desired tooth movements—such as space closure or alignment adjustments—before ultimately extracting these teeth. This approach can lead to optimal dental outcomes, as it allows for the redistribution of forces in a controlled manner. Once the desired movement is achieved or the treatment objectives are met, the designated teeth can then be removed, having served their purpose benefit through their temporary presence. This strategy also helps to minimize adverse effects on surrounding structures and can improve treatment efficiency. Using hopeless teeth in this manner underscores the importance of thinking creatively about tooth retention and extraction decisions within the framework of orthodontic therapy.

8. How do odontoclasts differ from osteoclasts?

- A. Odontoclasts are larger and more numerous**
- B. Odontoclasts resorb dental hard tissue**
- C. Osteoclasts form dental tissue**
- D. Odontoclasts are found only in cartilage**

Odontoclasts and osteoclasts both play crucial roles in bone and dental health, but they have distinct functions and characteristics. Odontoclasts specifically resorb dental hard tissues, including enamel, dentin, and cementum. This is an essential process during tooth eruption, exfoliation of primary teeth, and in response to dental trauma or pathology. The resorption of dental hard tissues allows for the remodeling of the dental environment, which is vital for maintaining healthy teeth and an intact oral structure. In contrast, osteoclasts are responsible for the resorption of bone tissue in the skeletal system. While both cell types derive from the same precursor cells, their functions and the tissues they act upon are different. Opposed to osteoclasts forming bone or contributing to its maintenance, odontoclasts focus solely on the mineralized tissues found in and around teeth. The other options highlight misunderstandings about the roles and characteristics of these two cell types. Thus, the focus on the ability of odontoclasts to resorb dental hard tissues makes the chosen answer accurate.

9. What is the angle of maxillary advancement in orthodontic treatments?

- A. Neutral position**
- B. -6 degrees**
- C. 0 degrees**
- D. Forward rotation**

The angle of maxillary advancement in orthodontic treatments refers to the positional change of the maxilla relative to the mandible. When the maxilla is advanced forward, it typically results in a forward rotation of the maxillary complex. This adjustment is crucial in treating various dental and skeletal discrepancies, particularly in cases of class II malocclusion or when improving facial aesthetic profiles. The forward rotation indicates that the maxilla is being positioned further anteriorly as compared to its original position, influencing not only occlusion but also facial harmony. This advancement aims to achieve a better esthetic outcome while aligning the dental arches appropriately for functional occlusion. While other positional changes or angles, such as neutral, negative, or zero degrees, may describe different treatment scenarios or outcomes, forward rotation specifically implies a proactive advancement of the maxilla, crucial for achieving the desired orthodontic objectives.

10. Which method is NOT recommended to improve the eruption path of canines?

- A. Extract C,D,E**
- B. Increased arch space**
- C. Expansion**
- D. Extract A,B**

Extracting the primary canines (A and B) is not recommended as a method to improve the eruption path of canines. The primary canines serve an important role in guiding the permanent canines into their proper eruption path. By extricating these primary teeth prematurely, there is a risk of disrupting the normal development and alignment of the underlying permanent teeth. The primary canines help maintain space for the erupting permanent canines and assist in establishing the occlusion and arch form. In contrast, methods such as extracting permanent premolars (C, D, E), increasing arch space, or expansion are strategies that can promote better eruption pathways for canines. These approaches either create additional room in the dental arch or modify the arch form, which can facilitate proper positioning of the canines as they erupt. Therefore, maintaining the primary canines is crucial for guiding the eruption of their permanent successors.

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://abo-orthodontics.examzify.com>

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

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