

Board Case Examination (BCE)

Study Guide & Sample Case

Examination Overview

The Board Case Examination (BCE) is a multiple choice, web-based assessment. Each examinee will be randomly assigned a test form that is made up of 50-60 questions depending on the examination received. There are multiple forms of the examination. The examination will allow the candidate a preset amount of time ranging from 70-90 minutes depending on the form assigned. Once an examination is started, you may not stop or pause. Therefore, please ensure that you are in an environment conducive to taking a timed examination with a reliable internet connection.

All examinees are required to agree to the following Confidentiality Agreement as part of the registration process for the BCE:

I understand that the content of all ABO Examinations, and each of its items contained therein, is proprietary and strictly confidential, and that the unauthorized retention, possession, copying, distribution, disclosure, discussions, or receipt of any examination question, in whole or in part, by written, electronic, oral or other form of communication, including but not limited to texting, e-mailing, social media outlets, copying or printing of electronic files, and reconstruction through memorization and/or dictation, before, during, or after an examination, is strictly prohibited. I further understand that, in addition to constituting irregular behavior subject to disciplinary action such as revocation of certification, revocation of eligibility for future certification, and disciplinary fines, such activities violate the rules and regulations governing ABO certification.

Please note that not all case records presented are of ABO standards. This is done intentionally for the intended line of questioning.

Also note that many of the cases contain mid-treatment records, however that does not mean that the Board recommends the treatment plan that was chosen.

The examination is composed of four domains:

1. Data Gathering and Diagnosis
2. Treatment Objectives and Planning
3. Treatment Implementation and Management
4. Critical Analysis and Outcomes Assessment.

The Board Case Examination is based on contemporary general knowledge of clinical orthodontic topics. All possible answers may be valid, but only one response is the MOST correct.

General test-taking tips:

1. Read the entire question carefully
2. Try to answer without referring to the answer choices
3. Read all the answer alternatives carefully
4. Use the process of elimination if you do not immediately know the correct answer
5. If you are struggling with a question, flag it so you can return to it later (if time permits)
6. Select the response that best answers the questions

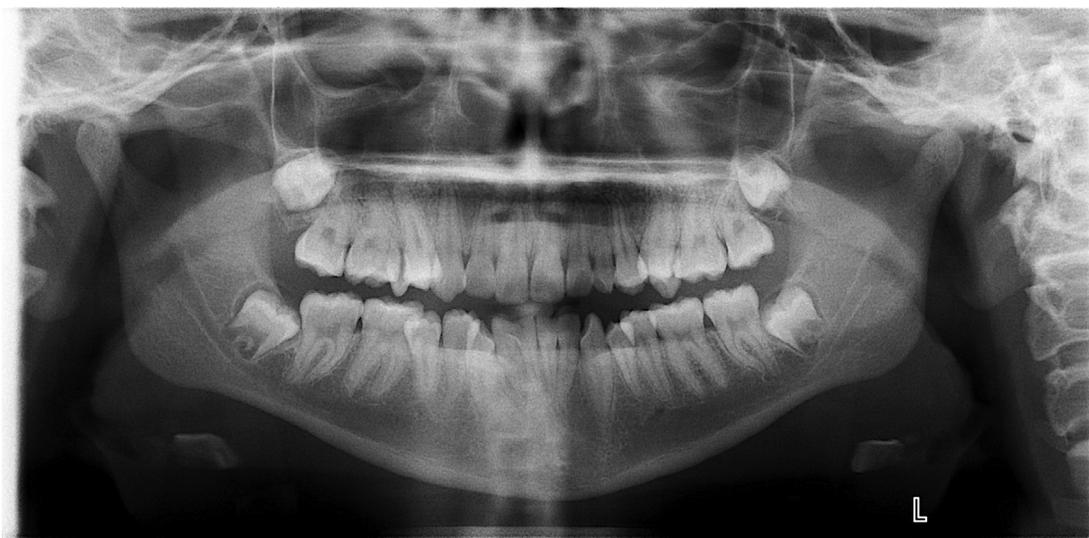
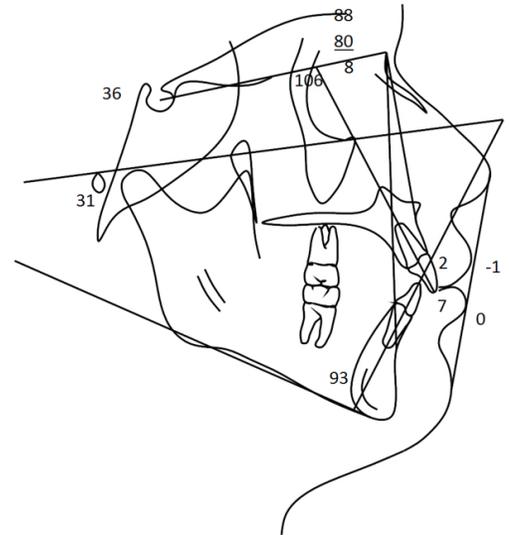
The examination will be automatically scored based on preset passing points and you will be notified automatically about a successful/unsuccessful outcome once the examination is completed. If unsuccessful, the examinee may attempt re-examination for a limited number of attempts following re-registration. If all of these opportunities have been exhausted, the examinee will be required to petition the board for further instruction regarding options to fulfill the necessary certification requirements.

Examination Instructions

Below is a general list of guidelines to complete the exam. The full document can be found [here](#). We recommend reviewing the full document prior to starting your exam. Doing so will provide you with information that will prepare you to take your exam and help in selecting an environment that is more likely to result in your success.

- When taking the exam use a reliable internet connection. If possible it is best to take the exam on a wired internet connection, as a wireless connection can have slower response times and you are more likely to lose connectivity. Do not attempt to take your exam using public wifi (such as in a restaurant/café, airport etc.) as these are slow internet connections.
- It is suggested that you avoid using Internet Explorer or Safari as your browser for the exam, as they are not as compatible with the software as other browsers. Firefox and Chrome are better alternatives.
- Once you have started your exam you cannot stop or pause, so please ensure that you are in an environment conducive to taking a timed examination. A reliable internet connection is important to ensure you have adequate time to complete your exam.
- Ensure that all pop-up blockers are disabled, as enlarged images rely on pop-ups to function. You will not be able to adequately view the case images if your pop-up blocker is enabled.
- We strongly suggest taking your exam on a computer with a larger computer screen. Please **do not attempt to take the exam on a cell phone, tablet, or laptop with a small screen**, as these devices do not have a large enough screen to allow you to sufficiently view the images for each case.
- Please do not wait until the very last moment of time before hitting the “complete set” button, as this will change your exam to an expired status and you will not be able to see your results or proceed to any subsequent exams until an ABO staff member can unlock it.

Sample Case and Questions



Question 1: All of the following are reasons to extract this patient's four first premolars **EXCEPT**:

- A: reduction of the incisor protrusion.
- B: improvement of the nasolabial angle.
- C: correction of the transposition.
- D: correction of crowding.
- E: correction of the deep overbite.

Answer: E: correction of the deep overbite.

Question 2: The midline discrepancy on this patient is most likely due to which of the following:

- A: maxillary dental arch asymmetry.
- B: mandibular dental arch asymmetry.
- C: maxillary skeletal asymmetry.
- D: the transposition of maxillary right canine and first bicuspid.

Answer: A: maxillary dental arch asymmetry.

Question 3: Using the cervical vertebral maturation (CVMS) method and the pretreatment records, which skeletal maturation stage best describes the patient.

- A: CVMS 2
- B: CVMS 3
- C: CVMS 4
- D: CVMS 5

Answer: D: CVMS 5

Question 4: In analyzing the vertical thirds for this patient's face, the following landmarks are used **EXCEPT**:

- A: nasion.
- B: subnasale.
- C: menton.
- D: glabella.
- E: pogonion.
- F: both (d) and (e)

Answer: F: both (d) and (e)

Question 5: This patient's maxillary midline discrepancy is most likely caused by:

- A: transposition of the maxillary left canine and first premolar.
- B: the lingual version of the maxillary right second premolar.
- C: the lingual version of the maxillary left second premolar.
- D: the retained maxillary deciduous left canine.
- E: the Class II relationship of the maxillary right first molar.

Answer: D: the retained maxillary deciduous left canine.

Question 6: Analysis of this patient's skeletal pattern indicates:

- A: maxillary vertical excess.
- B: a protrusive maxilla.
- C: a retrusive mandible.
- D: hypodivergency.

Answer: B: a protrusive maxilla.

Additional Resources

Exam content is based on clinical case analysis. Examinees that are looking for resources beyond the knowledge gained in their residency program and/or clinical practice **MAY** refer to the list below.

1. AAO Clinical Practice Guidelines for Orthodontics and Dentofacial Orthopedics
2. 3D Human Anatomy for Dentistry Primal's 3D Anatomy for Dentistry or any contemporary anatomy textbook, e.g., Gray's, Netter, etc.
3. Esthetics and Biomechanics in Orthodontics Author: Ravindra Nanda Publisher: Elsevier/ Saunders
Second Edition 2015
Chapter 4
Chapter 8
Chapter 18 – 20
Chapter 27
4. Contemporary Orthodontics Authors: William R. Proffit, Henry W. Fields, Jr., Brent Larson, David M. Sarver Publisher: Mosby Sixth Edition 2018
5. Management of Temporomandibular Disorders and Occlusion Author: Jeffrey P. Okeson Publisher: Elsevier Eighth Edition 2019

6. Mosby's Orthodontic Review Authors: Jeryl D. English, Sercan Akyalcin, Timo Peltomäki, Kate Litschel
Publisher: Elsevier Second Edition 2014
7. Oral and Maxillofacial Pathology Authors: Brad W. Neville, Douglas D. Damm, Carl M. Allen, Angela C. Chi
Publisher: Elsevier Fifth Edition 2023
8. Ten Cate's Oral Histology: Development, Structure and Function Author: Antonio Nanci Publisher:
Elsevier Ninth Edition 2017
Chapter 3
Chapter 5
9. Orthodontics and Dentofacial Orthopedics Authors: James A. McNamara, William L. Brudon Publisher:
Needham Press First Edition 2001
10. Orthodontics: Current Principles and Techniques Authors: Lee W. Graber, Katherine W.L. Vig, Greg J.
Huang, Padhraig S. Fleming Publisher: Mosby Seventh Edition 2022
Chapter 1 – 4
Chapter 6 – 7
Chapter 12
Chapter 14
Chapter 20
Chapter 22 – 23
Chapter 27
Chapter 33 – 34
11. Radiographic Cephalometry: From Basics to 3 - D Imaging Author: Alexander Jacobson Publisher:
Quintessence Second Edition 2006
12. Huang GJ, Richmond S, and Vig KWL: Evidence-based orthodontics, ed 2, Wiley-Blackwell, 2019.
13. Buschang PH, Roldan SI, Tadlock LP: Guidelines for assessing the growth and development of
orthodontic patients. Seminars in Orthodontics 23(4): 321-335, December 2017.