



SAUDI BOARD RESIDENCY TRAINING PROGRAM

ORTHODONTIC AND DENTOFACIAL ORTHOPEDICS

Promotion Examination

Written Examination:

Exam Format:

- A written examination shall consist of one paper with not less than 100 MCQs with a single best answer (one correct answer out of four options). Up to 10% unscored items can be added for pretesting purposes.
- The examination shall contain type K2 questions (interpretation, analysis, reasoning and decision making) and type K1 questions (recall and comprehension).
- The examination shall include basic concepts and clinical topics relevant to the specialty.
- Clinical presentation questions include history, clinical finding and patient approach. Diagnosis and investigation questions; include the possible diagnosis and diagnostic methods. Management questions; including treatment and clinical management, either therapeutic or nontherapeutic, and complications of management. Materials and Instruments questions; including material properties, usage, and selection of instruments and equipment used. Health maintenance questions; include health promotion, disease prevention, risk factors assessment, and prognosis.





Passing Score:

The trainee's performance is assessed in each of the evaluation formulas according to the following scoring system:

Score	Less than 50%	50% – 59.4%	60% - 69.4%	More than 70%
Description	Clear Fail	Borderline Fail	Borderline Pass	Clear Pass

1. To upgrade the trainee from a training level to the next level, she/he must obtain at least a **Borderline Pass** in each evaluation form.
2. The program director may recommend to the local supervision committee to request the promotion of the trainee who did not meet the previous promotion requirement according to the following:
 - A. In case that the trainee gets a **Borderline Fail** result in one of the evaluation forms, the remaining evaluation forms must be passed with **Clear Pass** in at least one of them.
 - B. In case that the trainee gets a **Borderline Fail** result in two of the evaluation forms to a maximum, provided they do not fall under the same theme (Knowledge, Attitude, Skills). The remaining evaluation forms must be passed with **Clear Pass** in at least two of them.
 - C. The promotion must be approved in this case by the scientific council for the specialization.





Suggested References R2:

Speech, Swallowing ,Respiratory Function and Habits

1. Johnson NC, Sandy JR. Tooth position and speech—is there a relationship? *The Angle Orthodontist*. 1999 Aug;69(4):306-10.
2. Warren JJ, Bishara SE. Duration of nutritive and nonnutritive sucking behaviors and their effects on the dental arches in the primary dentition. *Am J Orthod Dentofacial Orthop*. 2002 Apr;121(4):347-56.
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Tissue Reactions to Tooth Movement

1. Weltman B, Vig KW, Fields HW, Shanker S, Kaizar EE. Root resorption associated with orthodontic tooth movement: a systematic review. *American journal of orthodontics and dentofacial orthopedics*. 2010 Apr 1;137(4):462-76.
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Treatment Rationale

1. Bishara SE, Khadivi P, Jakobsen JR. Changes in tooth size—arch length relationships from the deciduous to the permanent dentition: A longitudinal study. *American Journal of Orthodontics and Dentofacial Orthopedics*. 1995 Dec 1;108(6):607-13.
2. Kokich VG. Surgical and orthodontic management of impacted maxillary canines. *American journal of orthodontics and dentofacial orthopedics*. 2004 Sep 1;126(3):278-83.
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4. Stephens CK, Boley JC, Behrents RG, Alexander RG, Buschang PH. Long-term profile changes in extraction and nonextraction patients. *American Journal of Orthodontics and Dentofacial Orthopedics*. 2005 Oct 1;128(4):450-7.
5. Leonardi R, Annunziata A, Licciardello V, Barbato E. Soft tissue changes following the extraction of premolars in nongrowing patients with bimaxillary protrusion: a systematic review. *The Angle Orthodontist*. 2010 Jan;80(1):211-6.
6. Kokich VG, Shapiro PA. Lower incisor extraction in orthodontic treatment: four clinical reports. *The Angle Orthodontist*. 1984 Apr;54(2):139-53.
7. Vilhjálmsón G, Zermeno JP, Proffit WR. Orthodontic treatment with removal of one mandibular incisor: Outcome data and the importance of extraction site preparation. *American Journal of Orthodontics and Dentofacial Orthopedics*. 2019 Oct 1;156(4):453-63
8. George SM, Campbell PM, Tadlock LP, Schneiderman E, Buschang PH. Keys to Class II correction: A comparison of 2 extraction protocols. *American Journal of Orthodontics and Dentofacial Orthopedics*. 2021 Mar 1;159(3):333-42.
9. Yezdani A, Nandhini N, Padmavati R. Serial extraction in orthodontics–A review. *European Journal of Molecular & Clinical Medicine*. 2020;7(2): 6432-6441.
10. O'Shaughnessy. Efficiency of serial extraction and late premolar extraction cases treated with fixed appliances. *AJODO* 139(4):510-16. Apr 2011

Anchorage :Lip Bumper, Implants, Extraoral Force and Miniscrews

1. Hodge JJ, Nanda RS, Ghosh J, Smith D. Forces produced by lip bumpers on mandibular molars. *American journal of orthodontics and dentofacial orthopedics*. 1997 Jun 1;111(6):613-22.
2. Poggio PM, Incorvati C, Velo S, Carano A. "Safe zones": a guide for miniscrew positioning in the maxillary and mandibular arch. *Angle Orthod*. 2006 Mar;76(2):191-7.
3. Papageorgiou SN, Zogakis IP, Papadopoulos MA. Failure rates and associated risk factors of orthodontic miniscrew implants: a meta-analysis. *Am J Orthod Dentofacial Orthop*. 2012 Nov;142(5):577-595.e7.
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Orthopedics and Class II Treatment

1. Patel HP, Moseley HC, Noar JH. Cephalometric determinants of successful functional appliance therapy. *The Angle Orthodontist.* 2002 Oct;72(5):410-7.
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Orthopedics and Class III Treatment

1. Ghiz MA, Ngan P, Gunel E. Cephalometric variables to predict future success of early orthopedic Class III treatment. *American Journal of Orthodontics and Dentofacial Orthopedics*. 2005 Mar 1;127(3):301-6.
2. Liu W, Zhou Y, Wang X, Liu D, Zhou S. Effect of maxillary protraction with alternating rapid palatal expansion and constriction vs expansion alone in maxillary retrusive patients: a single-center, randomized controlled trial. *American Journal of Orthodontics and Dentofacial Orthopedics*. 2015 Oct 1;148(4):641-51.

Orthopedics Expansion

1. Baccetti T, Franchi L, Cameron CG, McNamara Jr JA. Treatment timing for rapid maxillary expansion. *The Angle Orthodontist*. 2001 Oct;71(5):343-50.
2. Ghoneima A, Abdel-Fattah E, Hartsfield J, El-Bedwehi A, Kamel A, Kula K. Effects of rapid maxillary expansion on the cranial and circummaxillary sutures. *American Journal of Orthodontics and Dentofacial Orthopedics*. 2011 Oct 1;140(4):510-9.
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Vertical Dimension

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Soft Tissue

1. Sarver DM. The importance of incisor positioning in the esthetic smile: the smile arc. *American Journal of Orthodontics and Dentofacial Orthopedics*. 2001 Aug 1;120(2):98-111.
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Retention and Relapse

1. Zachrisson BU. Important aspects of long term stability. *J Clin Orthod*. 1997;31:562-83.
2. Little RM. Stability and relapse of dental arch alignment. *British journal of orthodontics*. 1990 Aug;17(3):235-41
3. Al-Moghrabi D, Littlewood SJ, Fleming PS. Orthodontic retention protocols: An evidence-based overview. *British Dental Journal*. 2021 Jun;230(11):770-6.

Interdisciplinary Treatment & Adult Orthodontics

1. *Adult Orthodontics*. Birte Melsen. 2012, 1st Edition, Wiley- Blackwell, Hoboken. ISBN: 978-1405136198.
2. Chapter 18: Special Considerations in Treatment for Adults in: *Contemporary Orthodontics*. William R. Proffit, Henry W. Fields Jr., David M. Sarver. 2012, 5th Edition, Mosby Inc., Saint Louis. ISBN: 978-0323083171.
3. Spear FM, Kokich VG, Mathews DP. Interdisciplinary management of anterior dental esthetics. *JADA* 2006;137(2):160-9.
4. Thilander B. Orthodontic space closure versus implant placement in subjects with missing teeth. *J Oral Rehabil* 2008;35:64-71.





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Behavioral Science

1. Humphris G, Ling MS, 2000. *Behavioural Sciences for Dentistry*. Elsevier Health Sciences.
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3. Baer DM. Advances and gaps in a behavioral methodology of pediatric medicine. In: Krasgenor, N.A., Arasteh, J.D. and Cataldo, M.F. *Child Health Behavior*, John Wiley & Sons, Inc., pp. 54-69, 1986.
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9. Velan E, Kiyak HA, Mouradian WE, Slayton RL, Psoter K. A study of informed consent and health literacy in a university pediatric dental residency setting. Manuscript in preparation.
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15. Motegi E, Hatch JP, Rugh JD, Yamaguchi H. Health-related quality of life and psychosocial function 5 years after orthognathic surgery. *Am J Orthod Dentofacial Orthop.* 2003;124: 138-143.
16. Ackerman MB, McRae MS, Longley WH. Microsensor Technology to help monitor removable appliance wear. *Am J Orthod Dentofacial Orthop.* 2009;135: 549-551.
17. Sahm G, Bartsch A, Witt E. Reliability of patient reports on compliance. *European Journal of Orthodontics.* 1990;12: 438-446.
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Occlusion and Temporomandibular Disorders

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Orthognathic Surgery

1. Profitt WR, White RP, Sarver DM. Contemporary Treatment of Dentofacial Deformities.

Note:

This list is intended for use as a study aid only. SCFHS does not intend the list to imply endorsement of these specific references, nor are the exam questions necessarily taken solely from these sources.

Suggested References R3:

Basic Orthodontic Topic

Superimpositions

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Biomechanics and Temporary Anchorage Devices

1. Isaacson RJ, Lindauer SJ, Davidovitch M. The ground rules for arch wire design. *Semin Orthod* 1(1):3-11, 1995.
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Craniofacial Growth

1. Thilander, B. (2017). Craniofacial growth and development. *Essential Orthodontics*, 30, 25.
2. Proffit WR. *Contemporary Orthodontics*. 6th edition, Chapter 2 - 4.
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Evidence Based Orthodontic

Growth Modification, Asymmetry, Bimaxillary Dentoalveolar Protrusion

1. Cozza P, Baccetti T, Franchi L, De Toffol L, McNamara JA. Mandibular changes produced by functional appliances in Class II malocclusion: a systematic review. *Am J Orthod Dentofacial Orthop* 129(5):599, e1-12, 2006.
2. Mandall, N., Cousley, R., DiBiase, A., Dyer, F., Littlewood, S., Mattick, R., & Shargill, I. (2016). Early class III protraction facemask treatment reduces the need for orthognathic surgery: a multi-centre, two-arm parallel randomized, controlled trial. *Journal of orthodontics*, 43(3), 164-175.
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Impacted Canines

1. Kokich VG. Surgical and orthodontic management of impacted maxillary canines. *Am J Orthod Dentofacial Orthop* 126:278-283, 2004.
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4. Management of Impactions. Lee W. Graber, *Orthodontics: Current Principles and Techniques*. 6th Edition. Chapter 28.

Transverse Dimension

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Vertical

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Interceptive and Trauma

1. Mucedero, M., Fusaroli, D., Franchi, L., Pavoni, C., Cozza, P., & Lione, R. (2018). Long-term evaluation of rapid maxillary expansion and bite-block therapy in open bite growing subjects: A controlled clinical study. *The Angle Orthodontist*.
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Congenitally Missing Laterals and Multidisciplinary

1. Kokich VG, Spear FM. Guidelines for managing the orthodontic- restorative patients. *Semin Orthod* 3(1):3-20, 1997.
2. Mathews DP, Kokich VG. Managing treatment for the orthodontic patient with periodontal problems. *Semin Orthod* 3(1):21-38, 1997.
3. Eustáquio A. Araújo. Diagnostic Protocol In Cases Of Congenitally Missing Maxillary Lateral Incisors. *World J Orthod* 2006;7:376-388.

Medications and Allergies

1. Eustáquio A. Araújo. Diagnostic Protocol In Cases Of Congenitally Missing Maxillary Lateral Incisors. *World J Orthod* 2006;7:376-388.
2. Kolokitha OE, Chatzistavrou E. Allergic reactions to nickel-containing orthodontic appliances: clinical signs and treatment alternatives. *World J Orthod*. 2008 Winter;9(4):399-406.
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Cleft Lip & Palate and Craniofacial Anomalies

1. Berkowitz, S. Cleft Lip and Palate with an Introduction to Other Craniofacial Anomalies – Perspectives in Management (Two-Volume Set), 1995. Singular Publishing Group
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Retention and Stability

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Note:

This list is intended for use as a study aid only. SCFHS does not intend the list to imply endorsement of these specific references, nor are the exam questions necessarily taken solely from these sources.





Blueprint Outlines:

No.	Sections – R2	Percentage
1	Orthopedics :Class II ,III ,Expansion and Vertical	21%
2	Treatment Rationale	10%
3	Anchorage	8%
4	Tissue Reactions to Tooth Movement ,Retention and Relapse	5%
5	Speech, Swallowing ,Respiratory , Soft tissue and Habits	6%
6	Orthognathic Surgery	20%
7	Interdisciplinary Treatment & Adult Orthodontics	20%
8	Occlusion and Temporomandibular Joint Disorders	5%
9	Behavioral Sciences	5%
Total		100%

No.	Sections – R3	Percentage
1	Basic Orthodontic Topic	25%
2	Evidence Based Orthodontic	40 %
3	Retention and Stability	5%
4	TMJ and Occlusion	20%
5	Cleft Lip & Palate and Craniofacial Anomalies	5%
6	Orthognathic Surgery	5%
Total		100%

Notes:

- Blueprint distributions of the examination may differ up to +/-5% in each section.
- Percentages and content are subject to change at any time. See the SCFHS website for the most up-to-date information.
- Research, Ethics, Professionalism, and Patient Safety are incorporated within various domains.
- Results will be published within 14 business days following the last date of your examination.

