Sample MSc Orthodontic examination questions taken from previous examination papers.

Q1. A patient attends at age 9 with a reverse overjet. Discuss your management of the case discussing the possible treatment options available.

Q2. Define the meaning of a high angle case. Discuss the treatment of such a case.

Q3. A 12 year old patient attends with a retained deciduous/primary maxillary canine. Discuss your diagnosis, including any special tests, and treatment of this case. Scientific references to the prognosis of treatment provided should be cited where appropriate.

Q4. Orthodontic treatment with fixed appliances is capable of damaging the dentition. Discuss the possible iatrogenic effects of orthodontics, the incidence, predisposing factors and the treatment.

Q5. Growth of the facial skeleton varies during a patient’s development. Describe the current growth theories as they relate to changes in the craniofacial skeleton from birth until the age of 30 citing the appropriate references.

Q6. There are many controversial issues in contemporary orthodontics. Two areas are the friction between the bracket and the archwire and the use of lacebacks. Discuss each of these areas as they relate to your clinical practice and relate this to the information available.

Q7. Describe the diagnosis and treatment planning of an 11 year old patient who presents with a Class II Division 1 incisor relationship on a severe Class II skeletal base. Support your statements with the appropriate references.

Q8. Discuss the use of imaging in contemporary orthodontic practice together with any recent advances. Detail the ideal qualities of an image and how these are achieved whilst protecting the patient.

Q9. Discuss and design a randomized controlled clinical trial for the assessment of root resorption following orthodontic therapy with a fixed appliance. Cite any examples of studies involving such appliances which you have identified during your studies.

Q10. Describe the diagnosis and treatment planning of an eight year old patient who presents with a Class III incisor relationship. Support your statements with the appropriate references.

Q11 Discuss the modern concepts of the biology of orthodontic tooth movement and detail what may occur when the coordination fails.

Q12 Discuss and design a randomized controlled clinical trial for the assessment of a new bonding material. Cite any examples of studies involving new dental materials which you have identified during your studies.
Q13. Describe the diagnosis and treatment planning of an eight year old patient who presents with a Class II Division 1 incisor relationship. Support your statements with the appropriate references.

Q14. Discuss bracket designs as they apply to contemporary orthodontic practice. Detail the ideal properties and how the current brackets achieve these qualities.

Q15. Discuss and design a randomized controlled clinical trial for the assessment of a new band cement. Cite any examples of studies involving new dental materials which you have identified during your studies.

Q16. Describe normal development of the occlusion from the age of 2 to 20 years. What interceptive orthodontic procedures might be necessary during this period of development (assume the patient has a class I skeletal pattern)?

Q17. Orthodontic treatment with fixed appliance systems can be associated with damage to the teeth and their supporting structures. Describe the types of damage and how this can be minimised or prevented.

Q18. Functional appliances can significantly enhance mandibular growth during the treatment of skeletal Class II malocclusions. Discuss this statement with reference to recent published evidence.

Q19. Describe the diagnosis and treatment planning of an eleven year old patient who presents with a Class II division 2 incisor relationship. Support your statements with the appropriate references especially with respect to the long term stability.

Q20. Discuss archwires as they apply to contemporary orthodontic practice. Detail the ideal properties and how the current archwires achieve these properties.

Q21. An adult patient attends with the signs and symptoms of temporomandibular joint dysfunction (TMD). Discuss the evidence base for providing the patient with information regarding their condition. Discuss specifically in the last section of your answer the information given to the patient regarding (i) the potential for alleviating the signs and symptoms of TMD following treatment and (ii) the advice regarding the change in duration and severity of symptoms during active orthodontic care.