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**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**FINAL BDS PART – I DEGREE EXAMINATION – FEBRUARY 2020**  
**SUBJECT: ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS (ESSAY)**  
**(NEW REGULATION)**

Wednesday, February 19, 2020

Time: 14:15 – 17:00 Hrs.

Maximum Marks: 60

✍ **Answer ALL questions.**

✍ **Long questions:**

1. Describe in detail the management of class III malocclusion. (10 marks)

2. Mention the mechanisms involved in the growth of maxilla. Describe in brief the postnatal growth of maxilla. (3+7 = 10 marks)

3. **Write short notes on:**

- 3A. Reinforced anchorage.
- 3B. Skeletal and dental effects of R.ME.
- 3C. Presurgical orthodontics.
- 3D. Treatment of deep bite.
- 3E. Problems associated with cleft lip and palate.
- 3F. Causes of relapse.
- 3G. Orthodontic study models.
- 3H. Andrew's six keys to occlusion.
- 3I. The Ugly Duckling stage.
- 3J. The functional matrix concept.

(4 marks × 10 = 40 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**FINAL BDS PART – I DEGREE EXAMINATION – FEBRUARY 2020**  
**SUBJECT: ORTHODONTICS (ESSAY)**  
**(OLD REGULATION)**

Wednesday, February 19, 2020

Time: 14:30 – 17:00 Hrs.

Maximum Marks: 80

**Answer ALL the questions.**

1. Write in detail about the procedure, indications, contraindications, appliances, effects and retention of rapid maxillary expansion.

(1+1+1+3+3+1 = 10 marks)

2. **Write short notes on:**

- 2A. Methods of studying craniofacial growth
- 2B. Types of orthodontic forces based on duration of application
- 2C. Therapeutic extraction of first premolars
- 2D. Management of midline diastema
- 2E. Clinical features and management of digit sucking habit
- 2F. Ackerman-proffit classification
- 2G. Features of Class III malocclusion
- 2H. Catlans appliance
- 2I. Theories of tooth movement
- 2J. Cervical vertebrae maturation index

(5 marks × 10 = 50 marks)

3. **Write short answers on:**

- 3A. Wolff's law of transformation of bone
- 3B. Flush terminal plane
- 3C. Types of facial profile and landmarks used for its assessment
- 3D. Design of nance palatal arch and its application
- 3E. List the various causes of relapse
- 3F. Composition of dental solder
- 3G. List clinical features of Class II Div 1 malocclusion
- 3H. List the factors to be considered while designing a spring
- 3I. Define ANB angle and depict it graphically
- 3J. List the various essential diagnostic aids

(2 marks × 10 = 20 marks)

