

FOURTH YEAR B.D.S. DEGREE EXAM
(Common to Final Year Paper I - Modified Regulation III Candidates and
Final Year Paper III - New Modified Regulation Candidates)

PAPER III – ORTHODONTICS AND
DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on:

(2 x 10 = 20)

1. What are Myo- functional Appliances? Classify them. On what principles do Myo- functional Appliances work? Describe in details about indications, design and working principle of any one functional Appliance.
2. Define Orthodontic Anchorage, List the anatomical structures that are used a source of Anchorage. Describe with suitable clinical examples, any one extra oral anchorage and any two intra oral anchorage.

II. Write Notes on:

(10 x 5 = 50)

1. High attachment of upper Labial frenum.
2. Classify orthodontic springs and write about “Guided springs”.
3. Cleft lip and Palate.
4. Twin block Appliance.
5. Facial and cephalometric features of skeletal Class III discrepancy.
6. Tongue thrusting habit.
7. What is an Ideal orthodontic force? Write the effects of optimal and higher force levels.
8. Upper Hawley’s Appliance.
9. Skeletal and Dental Deep bites.
10. Intramembranous and Endochondral ossification.

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Q.P Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Define occlusion and discuss the development of occlusion from birth till the eruption of permanent second molar.
2. What are functional appliances? Explain the mechanism of action of functional appliances and write in detail about Functional Regulator 1b.

II. Write Notes on: **(10 x 5 = 50)**

1. Goals of orthodontics.
2. Endochondral ossification.
3. Methods to correct posterior cross bite.
4. Simon's classification of malocclusion.
5. Importance and uses of study models.
6. Reverse pull headgears.
7. Removable retainers.
8. ANB angle.
9. Canine retractors.
10. Active space maintainer.

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Q.P Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Explain in detail about Angle's Classification of Malocclusion along with its merits and demerits.
2. Discuss in detail about Adams Clasp, design and construction and its various modifications in Orthodontics.

II. Write Notes on: **(10 x 5 = 50)**

1. Clinical importance of Growth Spurts.
2. Optimum Orthodontic Force.
3. Anterior Bite plane.
4. Reciprocal Anchorage.
5. Alginate.
6. Lip Bumper.
7. Austenitic Stainless Steel.
8. Open Bite.
9. Supracrestal Fibrotomy.
10. Finger Spring.

[LM 669]

FEBRUARY 2018

Sub. Code: 4218

FOURTH YEAR B.D.S. DEGREE EXAM
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Q.P Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Define habits and discuss in detail tongue thrusting habit, giving a note on etiology, classification and management.
2. Define Malocclusion and write about Angle's classification and how will you differentiate between true class III and Pseudo class III?

II. Write Notes on: **(10 x 5 = 50)**

1. Pericision.
2. Indications of serial extraction.
3. Lip Bumper.
4. Cervical pull headgear.
5. Causes of canine impaction.
6. Etiology of cleft palate.
7. Causes of relapse.
8. Undermining Resorption.
9. Bakers anchorage.
10. Study models.

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PAPER III – ORTHODONTICS AND
DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Classify essential diagnostic aids. Explain the importance, preparation and uses of study models.
2. Explain the different methods of gaining space in orthodontic treatment.

II. Write Notes on: **(10 x 5 = 50)**

1. Soldering.
2. Oral screens.
3. Labial bows.
4. Twin block.
5. Mandibular prognathism.
6. Causes of relapse.
7. Tweed's Cephalometric analysis.
8. Software applications in orthodontics.
9. Growth spurts.
10. Trajectories of forces.

FOURTH YEAR B.D.S. DEGREE EXAM
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PAPER III – ORTHODONTICS AND
DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Define growth? Enumerate the different theories of growth and explain in detail on function matrix theory.
2. Define preventive orthodontics. Explain the different procedures undertaken in preventive orthodontics.

II. Write Notes on: **(10 x 5 = 50)**

1. Moyers mixed dentition analysis.
2. Muscle Exercise.
3. Midline diastema.
4. Components of removable appliance.
5. Rapid maxillary expansion.
6. Chin cup.
7. Bionator.
8. Microimplants.
9. Anterior open bite.
10. Activator

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PAPER III – ORTHODONTICS AND
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Q.P. Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Define cephalostat. Explain in detail the importance of hand wrist radiographs in orthodontics.
2. Write in detail about development of dentition. Tabulate the chronology of eruption of permanent and deciduous dentition.

II. Write Notes on: **(10 x 5 = 50)**

1. Reverse pull headgear.
2. Austenitic stainless steel.
3. Accelerated orthodontics.
4. Retention appliances.
5. Down's Cephalometric analysis.
6. Deep bite.
7. Inclined planes.
8. Genetic disorders.
9. Ugly duckling stage.
10. Principles of surgical orthodontics.

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Q.P. Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Define retention, enumerate various theories of retention.
2. Define Anchorage, classify and write in detail about Extra Oral Anchorage.

II. Write Notes on: **(10 x 5 = 50)**

1. Cartilaginous theory.
2. Flux and Anti flux.
3. Methods of studying growth.
4. Canine impaction.
5. Hyrax.
6. Types of tooth movement.
7. Adult orthodontics.
8. Pseudo class III.
9. Tweeds Diagnostic Triangle.
10. Aesthetic retainers.

[LR 669]

**NOVEMBER 2020
(AUGUST 2020 SESSION)**

Sub. Code: 4218

**FOURTH YEAR B.D.S. DEGREE EXAM
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**PAPER III – ORTHODONTICS AND
DENTOFACIAL ORTHOPAEDICS**

Q.P Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: (2 x 10 = 20)

1. Write about etiology, clinical features, diagnosis and management of class II division I Malocclusion in a growing child.
2. Enumerate various methods of gaining space in Orthodontics. Write in detail about Proximal Stripping.

II. Write Notes on: (10 x 5 = 50)

1. Hand wrist radiograph.
2. Tissue changes to orthodontic force.
3. Study models.
4. Management of Crossbite.
5. Types of tooth movement.
6. Local etiological factors of Malocclusion.
7. Cartilagenous theory.
8. Inclined planes.
9. Ugly duckling stage .
10. Principles of surgical Orthodontics.

[BDS 0921]

SEPTEMBER 2021
(FEBRUARY 2021 SESSION)

Sub. Code: 4218

FOURTH YEAR B.D.S. DEGREE EXAM

**(Common to Final Year Paper I - Modified Regulation III Candidates and
Final Year Paper III - New Modified Regulation Candidates)**

PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Q.P. Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Define Retention, Enumerate various theories of Retention.
2. Explain the Post Natal Growth of Mandible in detail. Add a note on growth Spruts and their Importance.

II. Write Notes on: **(10 x 5 = 50)**

1. Functional Matrix Theory.
2. Head Gears.
3. Austenitic Stainless Steel.
4. Receprocal Anchorage.
5. Hyrax.
6. Types of Tooth Movement.
7. Adult Orthodontics.
8. Study Models.
9. Ugly Duckling Stage.
10. Undermining Resorption.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BDS 1221]

**DECEMBER 2021
(AUGUST 2021 SESSION)**

Sub. Code: 4218

FOURTH YEAR B.D.S. DEGREE EXAM

**(Common to Final Year Paper I - Modified Regulation III Candidates and
Final Year Paper III - New Modified Regulation Candidates)**

PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Q.P. Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: (2 x 10 = 20)

1. Define Malocclusion and list out Jackson's triad. Discuss in detail Ackerman – Profit classification.
2. Define and Classify Functional Appliances. Discuss in detail Mechanism of action of Functional Appliances.

II. Write Notes on: (10 x 5 = 50)

1. Sicher's Sutural Theory.
2. Cervical Vertebrae.
3. Broadbent Phenomenon.
4. Operant Conditioning.
5. Quad Helix.
6. Pressure – Tension Theory.
7. Mouth Breathing.
8. Active parts of fixed Appliances.
9. Reinforced Anchorage.
10. Pericision.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BDS 0522]

**MAY 2022
(FEBRUARY 2022 SESSION)**

Sub. Code: 4218

**B.D.S. DEGREE EXAM
(Common to Final Year Paper I Modified Regulation III Candidates and
Final Year Paper III New Modified Regulation Candidates)**

FINAL YEAR

PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Define Optimal Orthodontic Force. Explain the different types of Tooth Movement. Write in detail about the Phases of Tooth Movement.
2. List out and explain the various methods of Gaining Space in Orthodontics.

II. Write Notes on: **(10 x 5 = 50)**

1. Pont's Analysis.
2. Indications of Arch Expansion.
3. Trajectories of Force.
4. Delaire's Face Mask.
5. Flux and Anti Flux.
6. Stationary Anchorage.
7. Pericision.
8. Implants in Orthodontics.
9. Reciprocal Anchorage.
10. Methods of Studying Growth.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BDS 1022]

**OCTOBER 2022
(AUGUST 2022 SESSION)**

Sub. Code: 4218

**B.D.S. DEGREE EXAMINATION
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Final Year Paper III New Modified Regulation Candidates)**

**FINAL YEAR
PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS
Q.P Code: 544218**

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: (2 x 10 = 20)

1. Define Orthodontics and its branches. Discuss in detail the unfavourable sequelae of Malocclusion.
2. Discuss the clinical features and management of class III malocclusion.

II. Write Notes on: (10 x 5 = 50)

1. Safety valve mechanism.
2. Synchondroses.
3. Anterior Cross bite.
4. Poorman's cephalometric analysis.
5. Tongue thrusting.
6. Benninghoff's lines.
7. Twin Block.
8. Hyalinisation.
9. Arch Perimeter analysis.
10. Permanent retention.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BDS 0223]

FEBRUARY 2023

Sub. Code: 4218

B.D.S. DEGREE EXAMINATION

**(Common to Final Year Paper I Modified Regulation III Candidates and
Final Year Paper III New Modified Regulation Candidates)**

FINAL YEAR

PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: (2 x 10 = 20)

1. List out the theories of Tooth eruption and discuss the development of Occlusion from birth till 12 years of age.
2. What are the different types of expansion? Explain indications, contra indications and principle of Rapid Maxillary Expansion.

II. Write Notes on: (10 x 5 = 50)

1. Meckel cartilage.
2. Primary and secondary displacement.
3. Bilateral cephalometric landmarks.
4. Controlled and uncontrolled tipping.
5. Self supported springs.
6. Reciprocal anchorage.
7. Essix retainer.
8. Aetiology of cleft lip and palate.
9. Tongue blade therapy.
10. Facemask.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BDS 0723]

JULY 2023

Sub. Code: 4218

B.D.S. DEGREE EXAMINATION

**(Common to Final Year Paper I Modified Regulation III Candidates and
Final Year Paper III New Modified Regulation Candidates)**

FINAL YEAR

PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on:

(2 x 10 = 20)

1. Define Anchorage, classify and write in detail about each.
2. Define Retention and write the theories of Retention.

II. Write Notes on:

(10 x 5 = 50)

1. Intra Membranous Ossification.
2. Arch perimeter analysis.
3. Tweeds analysis.
4. Phases of Tooth movement.
5. Rapid Maxillary expansion.
6. Frankel Appliance.
7. 18-8 Stainless steel.
8. Dunlop beta hypothesis.
9. Bodily movement of Tooth.
10. Digital Study models.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BDS 1023]

**OCTOBER 2023
(AUGUST 2023 EXAM SESSION)**

Sub. Code: 4218

**B.D.S. DEGREE EXAMINATION
(Common to Final Year Paper I Modified Regulation III Candidates and
Final Year Paper III New Modified Regulation Candidates)**

**FINAL YEAR
PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS
Q.P Code: 544218**

Time: 180 Minutes

Maximum: 70 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Define Growth. Name the various theories of Growth. Elaborate on Functional matrix hypothesis with its clinical relevance.
2. What is trident of habits, classify habits and explain in detail about diagnosis and management of tongue thrusting.

II. Write Notes on: **(10 x 5 = 50)**

1. Wolff's law.
2. Write a note on various types of labial bows.
3. Types of tooth movement.
4. Hand wrist radiograph.
5. Safety valve mechanism.
6. Elgiloy.
7. Etiology of malocclusion.
8. CBCT in orthodontics.
9. Pericision.
10. Write a note on Arch perimeter analysis.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BDS 0224]

FEBRUARY 2024

Sub. Code: 4218

B.D.S. DEGREE EXAMINATION

**(Common to Final Year Paper I Modified Regulation III Candidates and
Final Year Paper III New Modified Regulation Candidates)**

FINAL YEAR

PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: Three Hours

Maximum: 70 Marks

**Answer All Questions in the same order
Draw suitable diagrams wherever necessary**

I. Elaborate on:

(2 x 10 = 20)

1. Define Malocclusion. Write in detail about clinical features of Class II Division 1 malocclusion along with its management.
2. Define orthodontics and name the branches of Orthodontics. Enumerate various methods of Interceptive Orthodontics.

II. Write Notes on:

(10 x 5 = 50)

1. Bionator.
2. Cephalometric landmarks.
3. Growth spurts.
4. Synchronoses.
5. Digital model.
6. 4S in tongue thrusting management.
7. 18:8 Stainless steel.
8. Write a note on phases of tooth movement.
9. Ugly duckling stage.
10. Write a note on thumb sucking and its management.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BDS 0824]

AUGUST 2024

Sub. Code: 4218

B.D.S. DEGREE EXAMINATION

FINAL YEAR

PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: Three Hours

Maximum: 70 Marks

**Answer All Questions in the same order
Draw suitable diagrams wherever necessary**

I. Elaborate on: **(2 x 10 = 20)**

1. What are the Various Diagnostic Aids? Write in detail about Study Models.
2. Define Interceptive Orthodontics and write in detail about Serial extraction.

II. Write Notes on: **(10 x 5 = 50)**

1. Synchondrosis.
2. Bolton's Analysis.
3. Steiner's Analysis.
4. Poorman's Cephalometrics.
5. Reverse Pull Head Gear.
6. Twin block.
7. Solder and flux.
8. Tongue thrusting Habit.
9. Controlled tipping.
10. Implants in Orthodontics.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BDS 0225]

FEBRUARY 2025

Sub. Code: 4218

B.D.S. DEGREE EXAMINATION

**New Modified Revised Regulation (August 2016 Examination Session onwards)
and New Modified Regulation {Candidates admitted from 2008-2009 onwards}**

FINAL YEAR

PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: Three Hours

Maximum: 70 Marks

**Answer All Questions in the same order
Draw suitable diagrams wherever necessary**

I. Elaborate on: (2 x 10 = 20)

1. Define Myo-functional Appliances. Write about classification and principles of Myo-functional appliances. Describe in detail about indications, design and working principle of Twin Block.
2. Classify etiology of Malocclusion. Describe in detail about Graber system of classification of etiology of Malocclusion.

II. Write Notes on: (10 x 5 = 50)

1. Scammon's growth curve.
2. Write a note on various schools of Retention.
3. Hyalinization.
4. Define Anchorage. Write a note on Reciprocal anchorage.
5. Drift vs Displacement.
6. Elaborate on serial extraction.
7. Etiology of cleft lip and palate.
8. Write a note on Mouth breathing.
9. Write a note on Adam's clasp and its modification.
10. Down's analysis.

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY

[BDS 0825]

AUGUST 2025

Sub. Code: 4218

B.D.S. DEGREE EXAMINATION

**New Modified Revised Regulation (August 2016 Examination Session onwards)
and New Modified Regulation {Candidates admitted from 2008-2009 onwards})**

FINAL YEAR

PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: Three Hours

Maximum: 70 Marks

**Answer All Questions in the same order
Draw suitable diagrams wherever necessary**

I. Elaborate on:

(2 x 10 = 20)

1. Define and classify Habits. Write about the etiology, effects, diagnosis and management of Thumb-sucking habits.
2. Enumerate various methods of skeletal maturity indicators. Write in detail about Hand Wrist Radiographs and methods of Assessment.

II. Write Notes on:

(10 x 5 = 50)

1. Jackson's triad.
2. Scammon's growth curve.
3. Ackerman- profit system of classification.
4. Write about Graber's classification of the etiology of malocclusion.
5. Diagnostic aids in orthodontics.
6. Digital Orthodontics.
7. Face mask.
8. Components of fixed appliance.
9. Theorems of Retention.
10. Rapid maxillary expansion.

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY

[BDS 0226]

FEBRUARY 2026

Sub. Code: 4218

B.D.S. DEGREE EXAMINATION

{New Modified Revised Regulation (August 2016 Examination Session onwards)

And New Modified Regulation (Candidates admitted from 2008-2009 onwards)}

(For the candidates admitted during the academic year 2021-2022)

FINAL YEAR

PAPER III – ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Q.P Code: 544218

Time: Three Hours

Maximum: 70 Marks

**Answer All Questions in the same order
Draw suitable diagrams wherever necessary**

I. Elaborate on:

(2 x 10 = 20)

1. Explain the different methods of Gaining space in Orthodontic treatment.
2. Define Habits and discuss in detail Tongue thrusting habit, giving a note on etiology, classification and its management.

II. Write Notes on:

(10 x 5 = 50)

1. Clinical importance of Growth spurts.
2. Optimum Orthodontic Force.
3. Rapid maxillary expansion.
4. Muscle exercise.
5. Digital applications in Orthodontics.
6. Lip bumper.
7. Austenitic Stainless Steel.
8. Open bite.
9. Supracrestal fibrotomy.
10. Causes of Relapse.
