

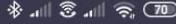
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**Theory  
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
















<b>S.No</b>	<b>Date</b>	<b>Clinical discussion topic</b>	<b>Faculty</b>	<b>No of students participate d</b>
1	11.05.2020	Introduction to orthodontics- Orthodontic Triage	Dr. Nivethitha	07

11.05.2020


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Close **Participants (17)**








































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-  Nivethitha Bhask... (host)   >
-  Annamalai Orthodontist   >
-  Harish P   >
-  Hema Suresh   >
-  Jaya Kumar   >
-  Jayabalan C   >
-  Jineesh M   >
-  Johnvee S   >
-  P vishanth   >
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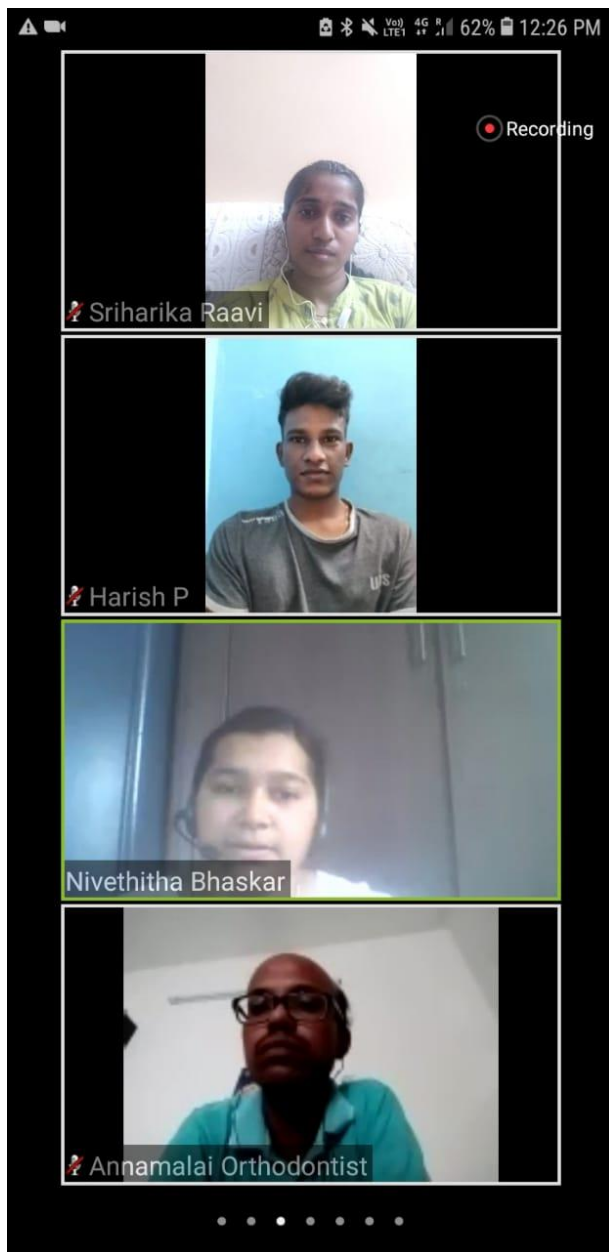
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-  P vishanth   >
-  Priyanga.V   >
-  Saravanakumar Subra...   >
-  Shanmugavelu S   >
-  Sriharika Raavi   >
-  Subhashini Raju   >
-  SUSHMITHA RAM   >
-  Yamini Jeyaraj   >

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## **REVISION TEST CONDUCTED**

<b>TOPIC</b>	<b>STUDENTS ATTENDED</b>
Etiology of malocclusion Methods of gaining space	07

say:

METHODS OF GAINING SPACE

- Proximal stripping
- Arch expansion
- Extraction
- Distalization of molars
- Uprighting of tilted molars
- Rotation of protruding teeth
- Protraction of anterior

1) Proximal stripping

- Is a method by which the proximal surfaces of the teeth are altered in order to reduce the mesio-distal width of the teeth
- Also called as slenderization, dedging

Indications:-

- of Bolton analysis shows mild tooth material excess in both arch.
- of Cassey's analysis shows tooth material excess of 0-2.5 mm.

# Orthodontics

## Essay:

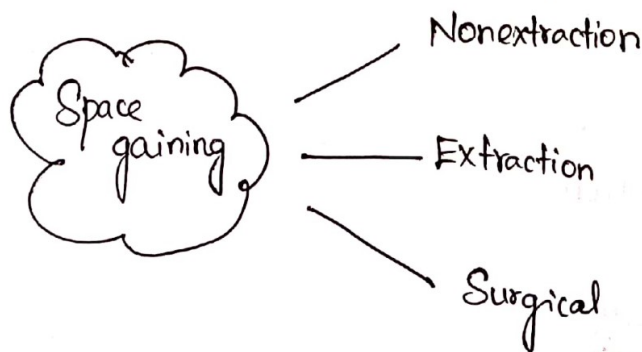
### Methods of gaining space:

\* Space in dental arch is required for the resolution of a majority of malocclusions.

\* It is required in

- Alignment of crowded teeth
- Retraction of proclined teeth
- Correction of molar relationship
- Leveling the curve of spee
- Correction of narrow dental arch
- Intrusion
- Correction of crossbite

It can be gained in various ways.



**Non-extraction**

- proximal stripping
- Arch expansion
- molar teeth distalisation
- proclination of anterior teeth
- Derotation of posterior teeth



11/5/20.

Orthodontics

Essay:

1. Methods of gaining space

SN 2.

1. Causes of malocclusion & Butler's field theory

2. Molar distalization - indications & complications

Essay:

1. Methods of gaining space are divided into 2 types:

(i) Procedures with reduction of tooth material

\* Proximal stripping or slicing

\* Extraction

(ii) Procedures without reduction of tooth material

\* Expansion

\* Lingual proclination

\* Distalization of molars

\* Derotation of posterior teeth

\* Uprighting.

Proximal stripping:

- It is a method by which proximal surface of teeth are sliced in order to reduce mesiodistal width of teeth.

The procedure is carried out when small amount of space is required for alignment of teeth.

## 1) Methods of gaining space:-

\* The correction of malocclusions requires space in order to move tooth into more ideal locations.

### \* Methods:-

- Proximal stripping
- Expansion
- Extraction
- Distalization
- Uprighting of molars
- Derotation of posterior teeth
- Proclination of anteriors.

### \* PROXIMAL STRIPPING:-

- Proximal surfaces of teeth are sliced in order to reduce mesio-distal width of teeth.
- Synonyms - Reproximation, slenderization, diskling, proximal slicing.

#### • Diagnostic aids:-

- Arch perimeter analysis
- Bolton's analysis
- Intra-oral periapical radiograph.

#### • Amount of proximal stripping:-

- Not more than 50% of enamel thickness should be reduced.



11/05/2020

Orthodontics

M. Jinish

Essay

## 1) Methods of gaining space:

• The correction of malocclusion requires space in order to move teeth into more ideal location.

→ Some of the methods of gaining space include:

A → Proximal stripping

B → Expansion

C → Extraction

D → Distalization

E → Uprighting of molars

F → Rotation of posterior teeth

G → Proclination of anterior.

A → Proximal stripping.

• It is a method by which the proximal surface of the teeth are shaved in order to reduce the mesio-distal width of the teeth.

## Ortho tut:

### Essay:

#### 1. Method of gaining space:

The correction of many malocclusion requires space in order to move teeth required for correction of crowding, retraction of proclined teeth.

planning space is an important aspect of treatment planning

methods of gaining space include:

1. proximal stripping.
2. Expansion
3. Extraction
4. Distalisation
5. Uprighting of molar.
6. Dentation of posterior teeth
7. proclination of anterior.

#### 1. PROXIMAL STRIPPING:

It is a method by which the proximal surface of the teeth are filed in order to reduce the mesio-distal width of the teeth.



i) General factors:-

- \* Heredity
- \* Congenital.
- \* Environment.

a. pre-natal.

b. post-natal

\* Pre-disposing metabolic climate & disease

a. Endocrine imbalance.

b. Metabolic disturbances.

c. Infectious diseases.

\* Dietary problems.

\* Abnormal pressure habits & functional Aberrations.

a. Abnormal sucking.

b. Thumb & finger sucking.

c. Tongue thrust & Tongue sucking

d. Lip & nail biting.

e. Respiratory Abnormalities.

f. Speech defects.

g. Tonsils & adenoids.

\* Posture.

\* Trauma & accidents.

ii) Local factors:-

\* Anomalies of Number:-

Supernumerary teeth,

Missing teeth.

\* Anomalies of tooth size.

\* Anomalies of tooth shape.

\* Abnormal labial frenum.

\* Premature loss of deciduous teeth.

\* Prolonged retention of deciduous teeth.

\* Ankylosis.

\* Dental caries.

\* Trauma dental restoration.

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S.NO	DATE	TOPIC	SEMINAR TAKEN BY	NO. of students particip ated	NO. of faculty participat ed
1.	12.05.20	Posterior crossbite	Dr. Subashini	07	06

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Jaya Kumar

Jayabalan C

Jineesh M

Johnvee S

P vishanth

Prema Anbarasu

Priyanga.V

Revanth Kumar

Saravanakumar Subramanian

Shanmugavelu S

SJ Sonu Jain

SUSHMITHA RAM

YJ Yamini Jeyaraj

YD Yuganthi Durai

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SR Sriharika Raavi (me)

Nivethitha Bhaskar (host)

SR Subhashini Raju

Annamalai Orthodontist

Harish P

Hema Suresh

Jaya Kumar

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Jineesh M

Harish P

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## **REVISION TEST CONDUCTED**

<b>TOPIC</b>	<b>STUDENTS ATTENDED</b>
Retention and relapse Anchorage	07

Essay:

1. ANCHORAGE

Def: The nature and degree of resistance to displacement offered by an anatomic unit when used for the purpose of effecting tooth movement.

CLASSIFICATION

ways:

(1) According to site

\* Intra-oral

- within the mouth

\* Extra-oral

\* Headgear - from action of muscles

Intra-oral:

- Cervical (Neck straps)
- Occipital (Head gear)
- Cervical (High pull head gear)
- Buccal (Face mask)

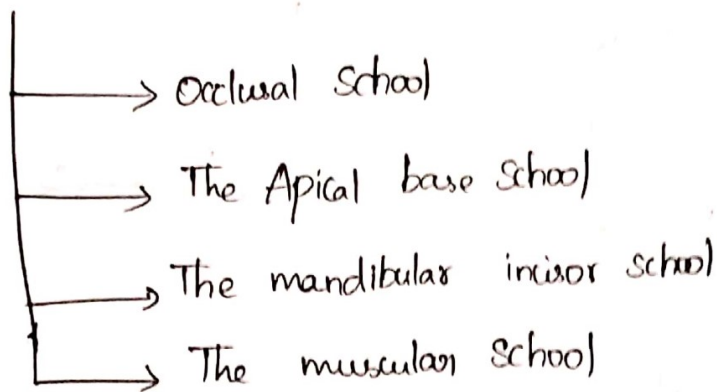
# Orthodontics

## Short notes:

### 1) Theories of retention:

Retention is defined as maintaining newly moved tooth in a position long enough to aid in stabilizing correction.  
- Moyers.

### Schools of Retention:



### \* Occlusion School of thought (Kinsley)

→ According to this, proper occlusion of teeth is a potent factor in maintaining stability of teeth.

→ At the end of active orthodontic treatment there should be proper intercuspation interdigitation.

→ There should be cusp-to-fossa relationship b/w maxillary & mandibular teeth.



12/5/20

Orthodontics.

S.N.

## 1. Theorems of Retention:

### Theorem 1:

Teeth that have been moved tend to return to their former position.

### Theorem 2:

Elimination of cause of malocclusion will prevent relapse.

### Theorem 3:

Malocclusion should be over-corrected as a safety factor.

### Theorem 4:

Proper occlusion is a potent factor in holding teeth in their corrected position.

### Theorem 5:

Bone & adjacent tissues must be allowed time to reorganize around newly positioned teeth.

### Theorem 6:

If the lower incisors are placed upright over their dental arch they are more likely to remain in good alignment.



# 1. Classification of Anchorage. (Moyers):-

## \* According to manner of force application:-

- Simple
- Stationary
- Reciprocal

## \* According to jaw involved:-

- Intra-maxillary
- Inter-maxillary

## \* According to site of anchorage:-

- Intraoral
- Extraoral -
  - Cervical
  - Occipital
  - Cranial
  - Facial
- Muscular.

## \* According to number of anchorage units:-

- Single or primary
- Compound
- Multiple or reinforced.

## Factors affecting anchorage:-

- Number of roots
- Shape, size, and length of each root.
- Multirrooted > single rooted
- Longer rooted > shorter rooted
- Triangular shaped root > conical or ovoid root
- Larger surface area > smaller surface area.

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# ORTHODONTICS

## Essay

- 1) clarify anchorage, factors affecting anchorage and prevention of anchorage loss.

- Tooth movement during orthodontics therapy is brought about by forces generated by the active components of an orthodontic appliance.
- The force used to move teeth is derived from certain anatomic areas, which act as anchors.

## classification of anchorage:

- 1) According to the manner of force application
  - a) simple anchorage
  - b) stationary anchorage
  - c) reciprocal anchorage
- 2) According to jaws involved:
  - a) Intra-maxillary
  - b) Inter-maxillary.

# Orthodontics:

Short notes:

1. Theorem of Retention:

theorem 1: teeth that have been removed tend to return to their former position.

theorem 2: Elimination of the cause of malocclusion will prevent relapse.

theorem 3: Malocclusion should be corrected as a safety factor

theorem 4: Proper occlusion is a potent factor in holding teeth to their correct position.

theorem 5: Bone and adjacent tissue must be allowed time to reorganize around newly positioned teeth

theorem 6: If the lower incisors are placed upright over basal bone they are more likely to remain in good alignment.

theorem 7: Correction carried out during periods of growth are less likely to relapse.



① Clarify Anchorage, enumerate factors affecting anchorage & the methods to prevent anchor loss.

Graber has defined anchorage in orthodontics as the nature & degree of resistance to displacement offered by an anatomic unit for the purpose of effecting tooth movement.

According to the manner of force application:-

- i) Simple anchorage.
- ii) Stationary anchorage.
- iii) Reciprocal anchorage.

According to Jaws involved:-

- i) Intra-maxillary
- ii) Inter maxillary.

According to site of anchorage:-

- i) Intraoral
  - a) cervical
  - b) occipital
  - c) cranial
  - d) Facial.

ii) Muscular.

According to Number of Anchorage Units:-

- i) Single or primary anchorage.
- ii) Compound anchorage.
- iii) Multiple or reinforced anchorage.

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1	13.05.2020	Surgical orthodontics	Dr. Yamini	82

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- S sanjana
- Santra Joseph
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- shruthi priya
- SR Shweta Ranjith

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SS	Sruthi S	  >
SK	Suba Keerthi	  >
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	Surya Nandakumar	  >
	SUSHMITHA RAM	  >





















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VJ	Vikneshwari Jayabalan	  >
VJ	Vikraman J	  >
VM	Vishalini Mohan	  >
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	Yuvarani Muthu Kumar	  >

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	Harini Prabha	  >
	Harish P	  >
HR	Harish Raghav	  >
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- Jineesh M   >
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- Nivethitha Bhaskar   >
- P vishanth   >

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- Prema Anbarasu   >
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- Revanth Kumar   >
- Saravanakumar Subramani...   >
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- SUSHMITHA RAM   >
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- YD Yuganthi Durai   >

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## **REVISION TEST CONDUCTED**

<b>TOPIC</b>	<b>STUDENTS ATTENDED</b>
Biology of tooth movement Methods of gaining space	07

## Orthodontics.

### Essay:

1. Enumerate & explain theories of tooth movement & role of resorption of tooth movement.

### Q. No.:

1. List out resorptive methods of classification of malocclusion
2. classify expansion appliances & role on fixed helix appliance

### Essay:

1. Orthodontic Tooth Movement:

It is a biological response to interference in physiological equilibrium of dentofacial complex by an external applied force.

### Theories of tooth movement:

1. Pressure Tension theory:

Relates tooth movement to cellular changes produced by chemical messengers, traditionally thought to be generated by shear stress in blood flow through PDL.

2. Bioelectric/Bone bending theory:

Relates tooth movement at least in part to changes in bone metabolism controlled by electric signals that are produced when alveolar bone is flexed and bends.



# Orthodontics

## Short notes:

1) List out the quantitative methods of classification of malocclusion.

Malocclusion is defined as a condition in which there is a deflection from the normal relation of teeth to other teeth in the same arch and/or to teeth in the opposing arch.

Broadly classified into 2 types



### Quantitative methods:

- \* The PAR index
- \* The IOTN index by Shaw
- \* Massler & Frankel
- \* Malalignment Index by Van Kerk & Pennel

### Qualitative methods:

- ✓ Angle's classification
- ✓ Modification of Angle's
- ✓ Simon's classification
- ✓ Bennett's classification
- ✓ Skeletal classification
- ✓ Aceman Profit classification
- ✓ WHO / FDI classification
- ✓ Aetiological classification
- ✓ Incisor classification
- ✓ Canine classification

1) Enumerate & explain the theories of tooth movement  
add a note on stages of tooth movement.

Theories of tooth movement:-

- i) Pressure tension theory by Schwarz.
- ii) Blood flow theory by Boen.
- iii) Bone bending piezoelectric theory.

Pressure-tension theory:-

\* Sandstedt (1904), Oppenheim (1911) &

Schwarz (1932).

\* Tooth moves in the periodontal space by  
generating a "pressure side" & "tension side".

	Pressure side	Tension side.
Blood flow	↓	↑
Cell replication	↓	↑
Fiber production	↓	↑
Oxygen level	↓	↑
CO <sub>2</sub> level	↑	↓

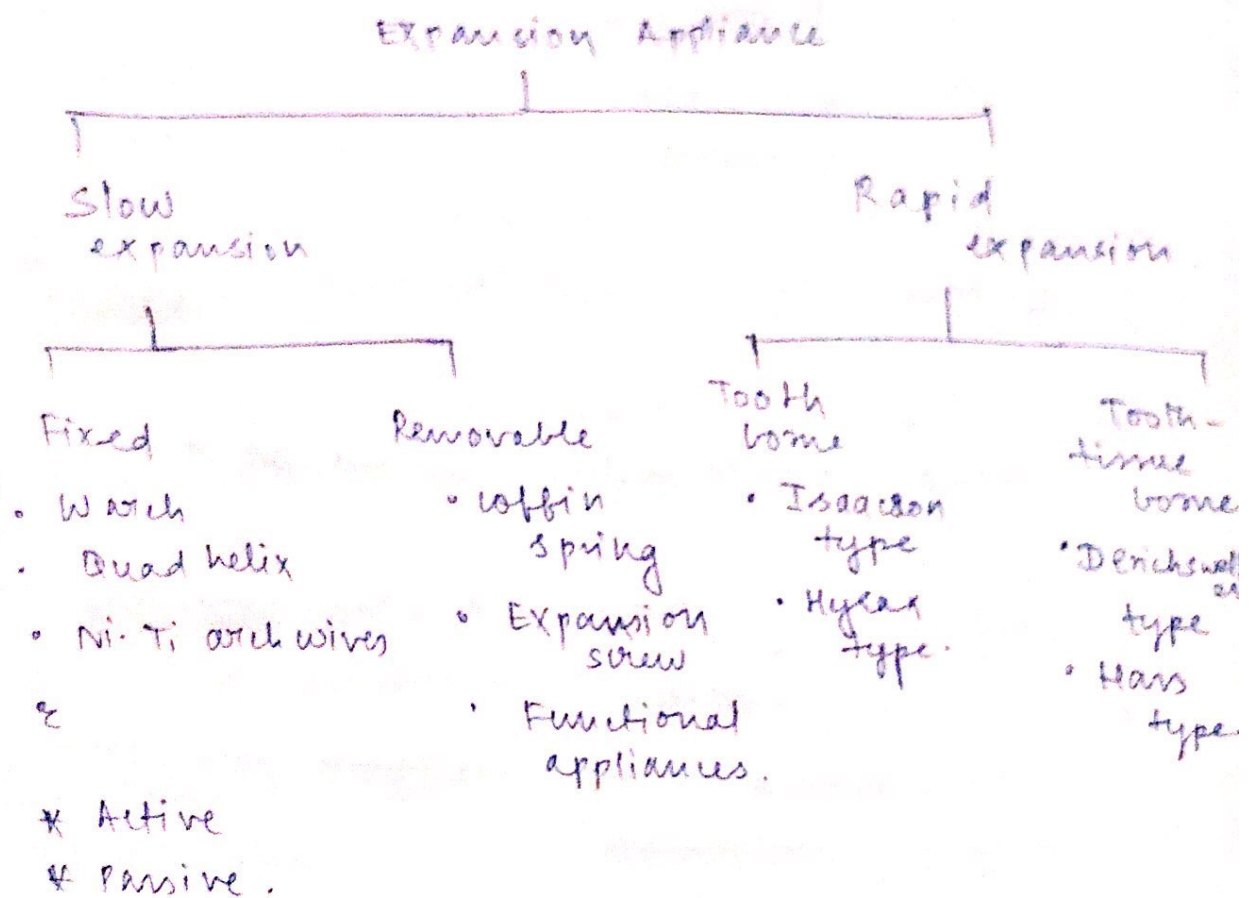
\* Schwarz concluded that the forces delivered  
as part of orthodontic treatment should not exceed  
the capillary bed blood pressure ( $20-25 \text{ g/cm}^2$  of  
root surface)

2) expansion of dental arches can be classified as:-

- Dento-alveolar expansion
- Skeletal expansion

They can also be classified broadly as:-

- Slow expansion
- Rapid expansion



### QUAD HELIX:-

- Described by Ricketts.
- Evolved from original Coffin's W spring.
- Flexibility and range of action is more.



Short Notes:

1. quantitative method of classification of malocclusion.

This method is used for "rate the severity of malocclusion".

1. Massler and Frankel

Count the no of teeth displaced or rotated

2. Malocclusion index (Van der Vliet + Penzel).

Tooth, displacement and rotation were measured.

3. Index of orthodontic treatment needs (IOTN)

4. Peer assessment rating (PAR) Index.

5. Handicapping Labio-lingual Deviation Index. (Drake)

Measurements include cleft palate, traumatic deviations, overjet, overbite, mandibular protrusion, anterior openbite, labio-lingual spread.

6. Occlusal features Index:

measurement include lower anterior, crowding, cuspal interdigitation, overbite and overjet.



# Ortho

## 1. QUANTITATIVE METHODS OR CLASSIFICATION OF MANDIBULISM

- The PAR Index
- The IOTN Index
- Messier & Proffit
- Malalignment Index

### Messier & Proffit

Count no. of teeth displaced or rotated  
(all or none assessment)

### Malalignment Index (Vankar & Parnell)

Tooth displacement & rotation were  
assigned quantitatively.

### Deviation Index

Measurements include left palate, transverse deviation, scarpet, scissure,  
Mandibular protrusion, anterior openbite, -

### Occlusal feature index

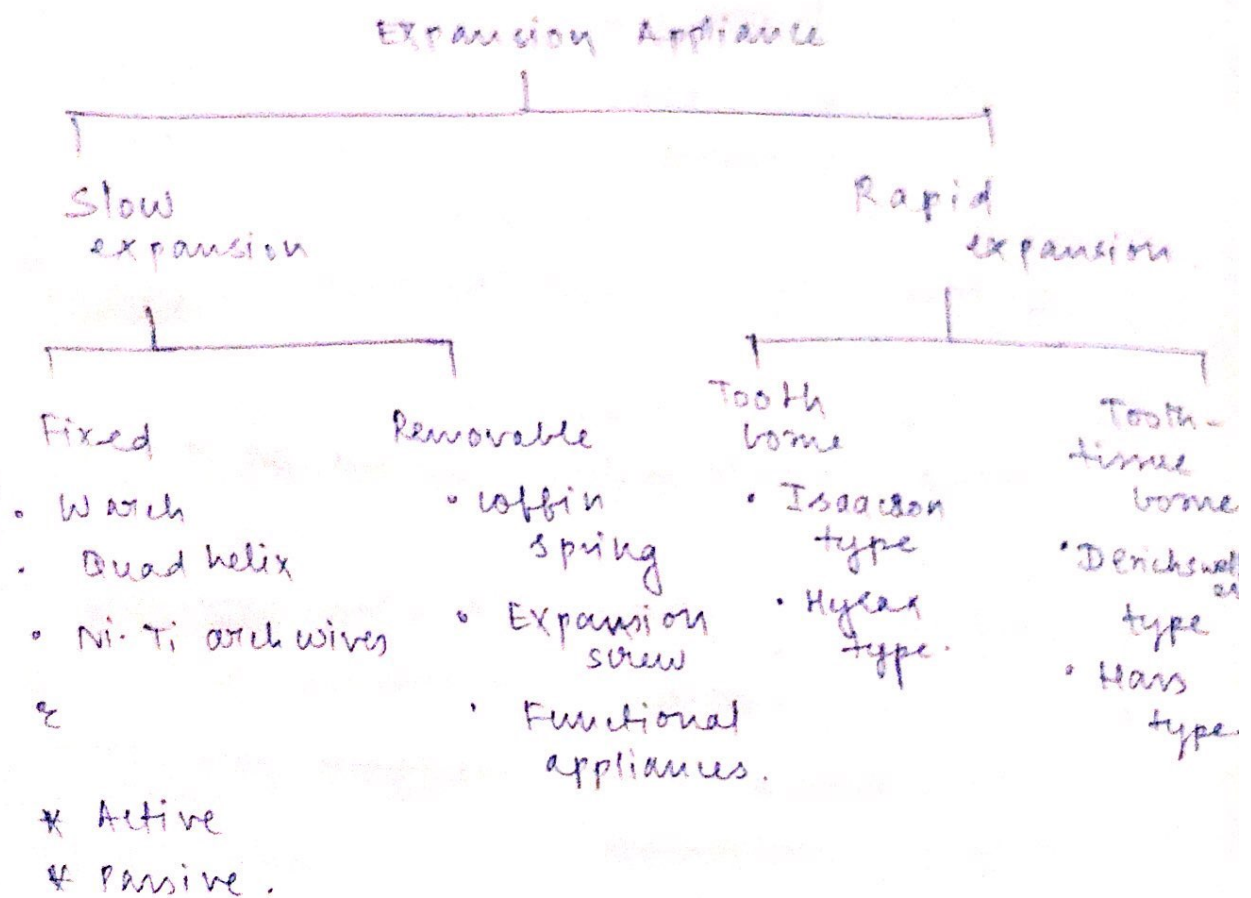
Measurements includes lower anterior crowding,  
deep interdigitation, scissure & scarpet.

2) expansion of dental arches can be classified as:-

- Dento-alveolar expansion
- Skeletal expansion

They can also be classified broadly as:-

- Slow expansion
- Rapid expansion



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








	Johnvee S	  >
	P vishanth	  >
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	Priyanga.V	  >
	Revanth Kumar	  >
	Saravanakumar Subramani...	  >
	Shanmugavelu S	  >
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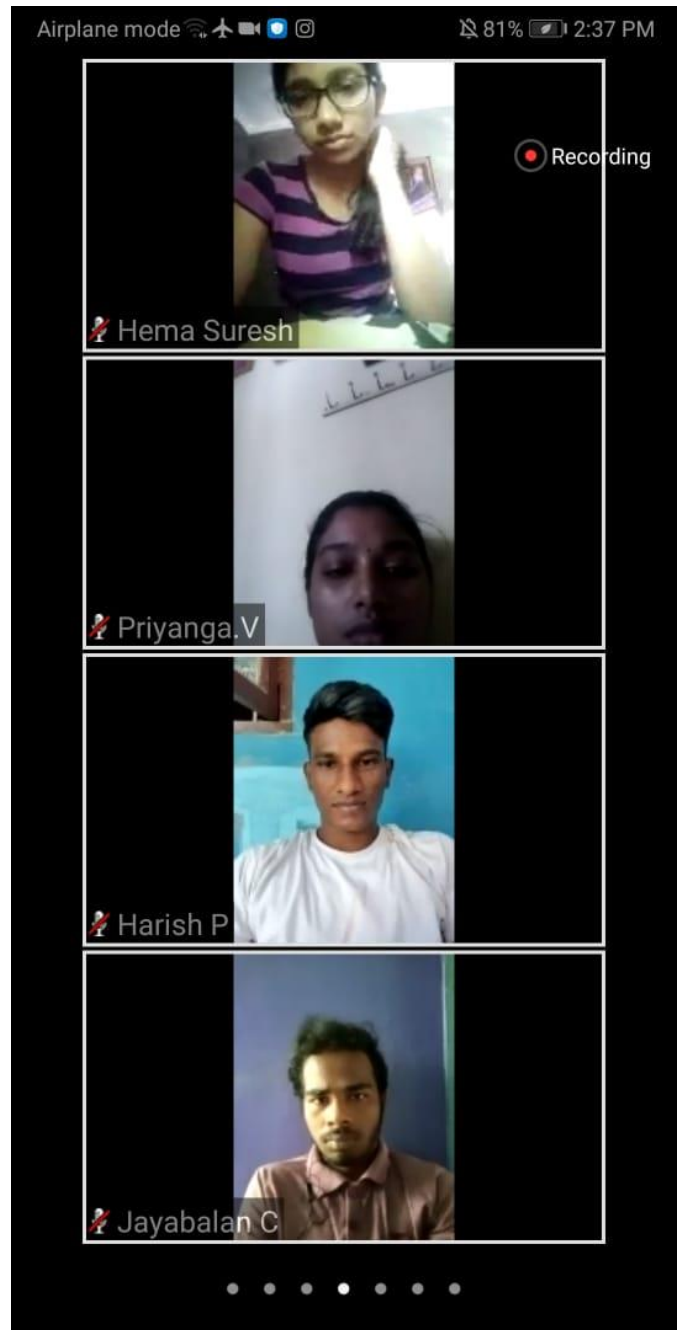
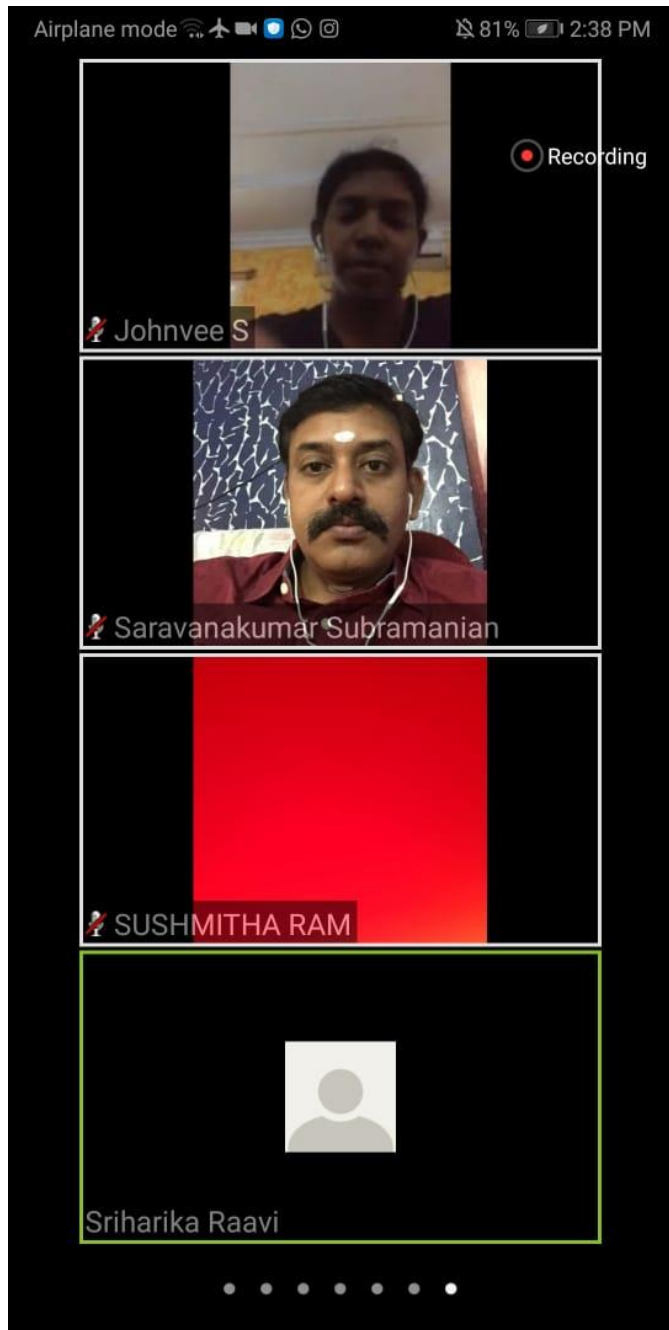
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	Subhashini Raju (me)	  >
	Nivethitha Bhaskar (host)	  >
	Sriharika Raavi	  >
	Annamalai Orthodontist	  >
	Harish P	  >
	Hema Suresh	  >
	Jaya Kumar	  >
	Jayabalan C	  >
	Jineesh M	  >
	Johnvee S	  >
	P vishanth	  >

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14.05.2020



14.05.2020

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Recording

Yamini Jeyaraj

Johnvee S

Prema Anbarasu

Jaya Kumar

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Subhashini Raju

Jaya Kumar

Jineesh M

Shanmugavelu S

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Sonu Jain

Revanth Kumar

yugan thi

Annamalai Orthodontist

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Recording

Yamini Jeyaraj

Prema Anbarasu

Jaya Kumar

Nivethitha Bhaskar

**14.05.2020**

## **REVISION TEST CONDUCTED**

<b>TOPIC</b>	<b>STUDENTS ATTENDED</b>
Removable appliances and biomechanical of tooth movement	07



## Essay

① Types of Tooth movement with Diagrams. Add Note on types of orthodontic forces.

\* The teeth undergo a variety of movements in all 3 planes of space i.e. sagittal, coronal & Transverse.

\* Tooth movements within the oral cavity can be -

→ Tipping.

→ Bodily movement.

→ Intrusion.

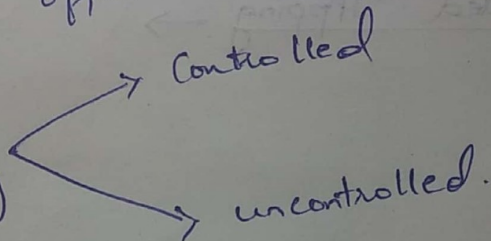
→ Extrusion.

→ Torquing.

→ Uprighting.

### Tipping:-

\* Tipping is a simple type of tooth movement where a single force is applied to crown which results in movement of crown in one direction of force & root in opposite direct.

\* Tipping   
Controlled  
uncontrolled.

### Controlled Tipping:-

→ It occurs when a tooth tips about a centre of rotation at its apex.

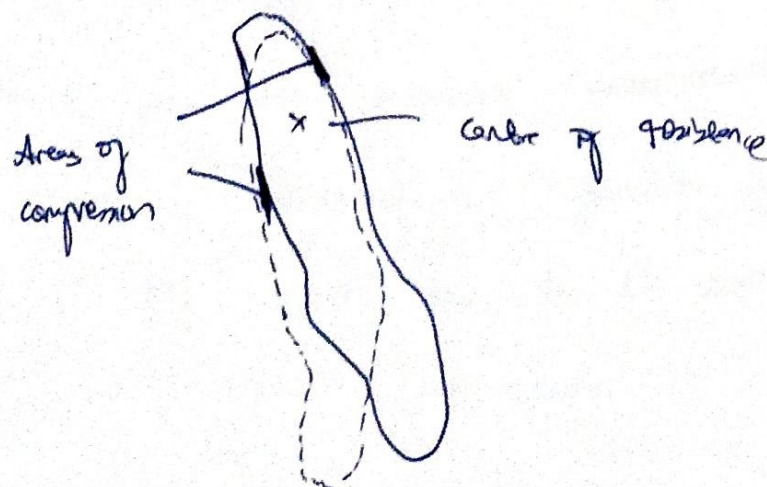
## Lesson

### 1. Types of Orthodontic Movements

- Tipping
- Translation
- Rotational
- Retraction
- Extrusion
- Uprighting
- Torquing

### TIPPING

- Tipping movement is produced when a single force is applied against the crown of a tooth.
- The tooth rotates around the center of resistance



- Optimal force = 35 to 60 gm



12/5/20

# Orthodontics

## Essay:

### Types of tooth movement with diagrams. Note on orthodontic

Basically there are 3 types of movement.

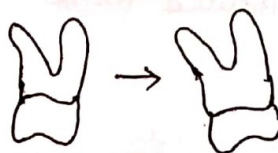
→ Translation (Bodily movement)

→ pure rotation

→ Combined rotation and translation

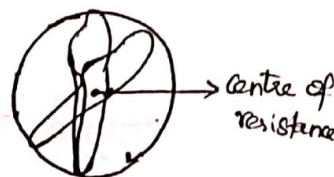
#### Translation:

It occurs when all points on tooth move an equal distance in same direction.



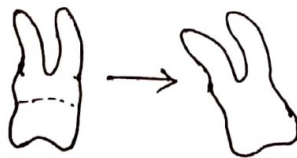
#### Pure rotation:

It indicates movement of points of tooth along the arc of a circle with the centre of resistance being the centre of circle



#### Combined:

Any movement that is not pure translation or rotation can be described as combination of rotation & translation.



#### ORTHODONTIC TOOTH MOVEMENTS:

- ✓ Tipping movement (Combined rotation & translation)
- ✓ Translation
- ✓ Rotation

14/5/20

Orthodontics

Qns:  
Essay:

1. Types of tooth movement with dia.  
Types of orthodontic forces.

Ans:

1. Classify ortho springs, spring character
2. Dis & adv of Removable orthodontic appliances

Essay:

Types of Tooth movement:

Controlled

- \* Tipping
- \* Bodily movement
- \* Intrusion & Extrusion
- \* Rotation
- \* Torquing
- \* Uprighting



Tipping  $\begin{cases} \text{controlled} \\ \text{uncontrolled} \end{cases}$

Controlled tipping:

Movement of crown occur in single direction  
while root shows no movement in opposite direction.



Centre of rotation lies at root apex.



## 1. Types of Tooth movement :-

- Tipping
- Bodily movement
- Intrusion
- Extrusion
- Torquing
- Uprighting

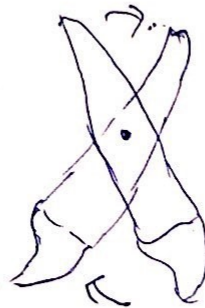
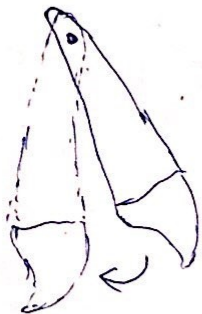
### Tipping :-

Single force is applied to crown, which results in movement of crown in direction of force and root in opposite direction.

#### Types :-

Controlled

Uncontrolled



### Bodily movement :-

If line of action of applied force passes through centre of centre of resistance of a tooth, all points on tooth will move an equal distance in same direction signifying a bodily

Essay

1) Types of tooth movement and orthodontic forces.

a) Types of tooth movement

The prime motive of orthodontic treatment is to move the teeth into more favorable and corrected positions.

Tooth movement within oral cavity are.

i) Tipping

- ii) Bodily movement
- iii) Extrusion.
- iv) Intrusion
- v) Torquing.
- vi) Uprighting

i) Tipping

It is a simple type of tooth movement when a single force is applied to the crown, which results in movement of the crown in the direction of the force and the root in the opposite direction.

Essay:

1. Types of tooth movement:

The prime motive of orthodontic treatment is to move the teeth into more favourable and corrected position.

Tooth movement within the oral cavity can be listed as follows.

1. Tipping.
2. Bodily movement
3. Intrusion
4. Extrusion
5. Torquing.
6. Uprighting.

1. Tipping.

(Combined rotation and translation)

→ If the force does not pass through the CE of tooth will translate as well as rotate around the CE.

→ Orthodontically tipping movement is produced when a single force (from a spring or labial bow from a removable appliance) is applied against the crown of a tooth.

**15.05.2020**



**DEPARTMENT OF ORTHODONTICS AND DENTOFACIAL  
ORTHOPAEDICS**

**E-Teaching/Learning sessions  
foFINAL YEAR STUDENTS**

**SEMINAR  
CLASS**

<b>S.No</b>	<b>Date</b>	<b>Seminar topic</b>	<b>Seminar taken by Intern</b>	<b>No of students participate d</b>
1	15.05.2020	Retained primary teeth	Dr. Shanmugavel u	07



































15.05.2020

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Close **Participants (19)**


































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SR	Subhashini Raju (me)	  >
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	Harish P	  >
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	Jineesh M	  >
	Johnvee S	  >
	P vishanth	  >

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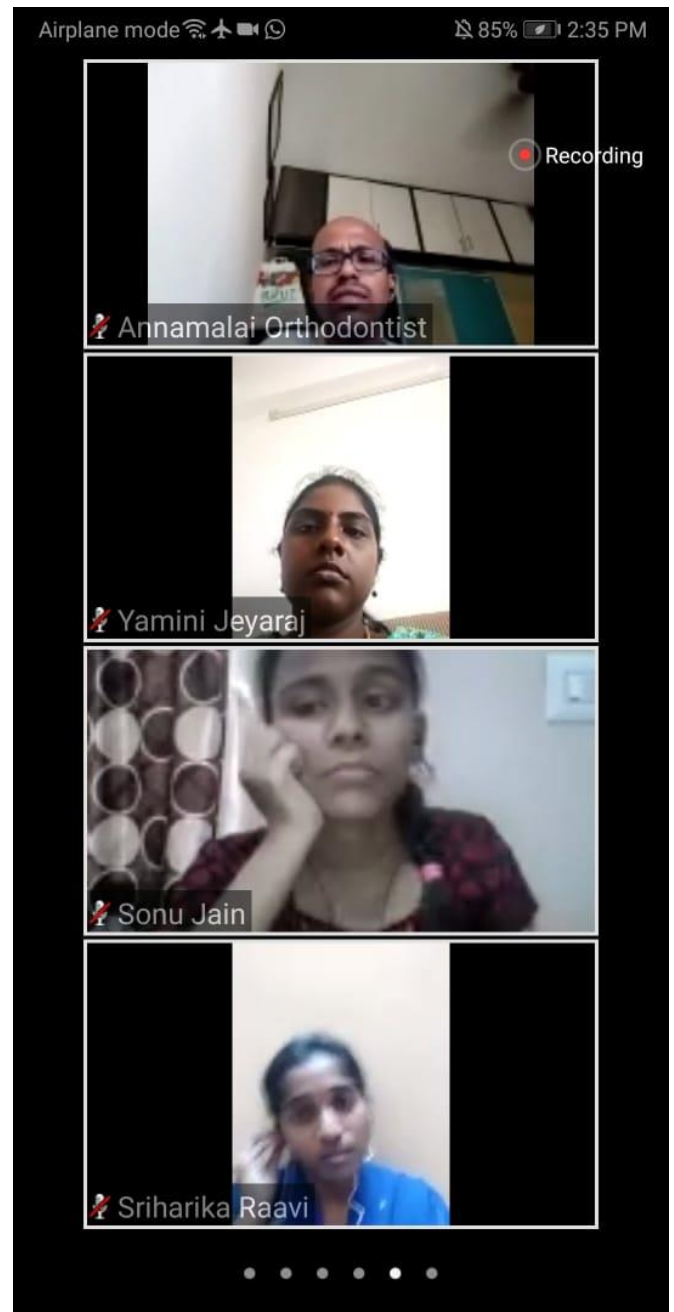
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Close **Participants (19)**

	Jineesh M	  >
	Johnvee S	  >
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	Prema Anbarasu	  >
	Priyanga.V	  >
	Revanth Kumar	  >
	Saravanakumar Subramani...	  >
	Sonu Jain	  >
	Sriharika Raavi	  >
	SUSHMITHA RAM	  >
	Yamini Jeyaraj	  >

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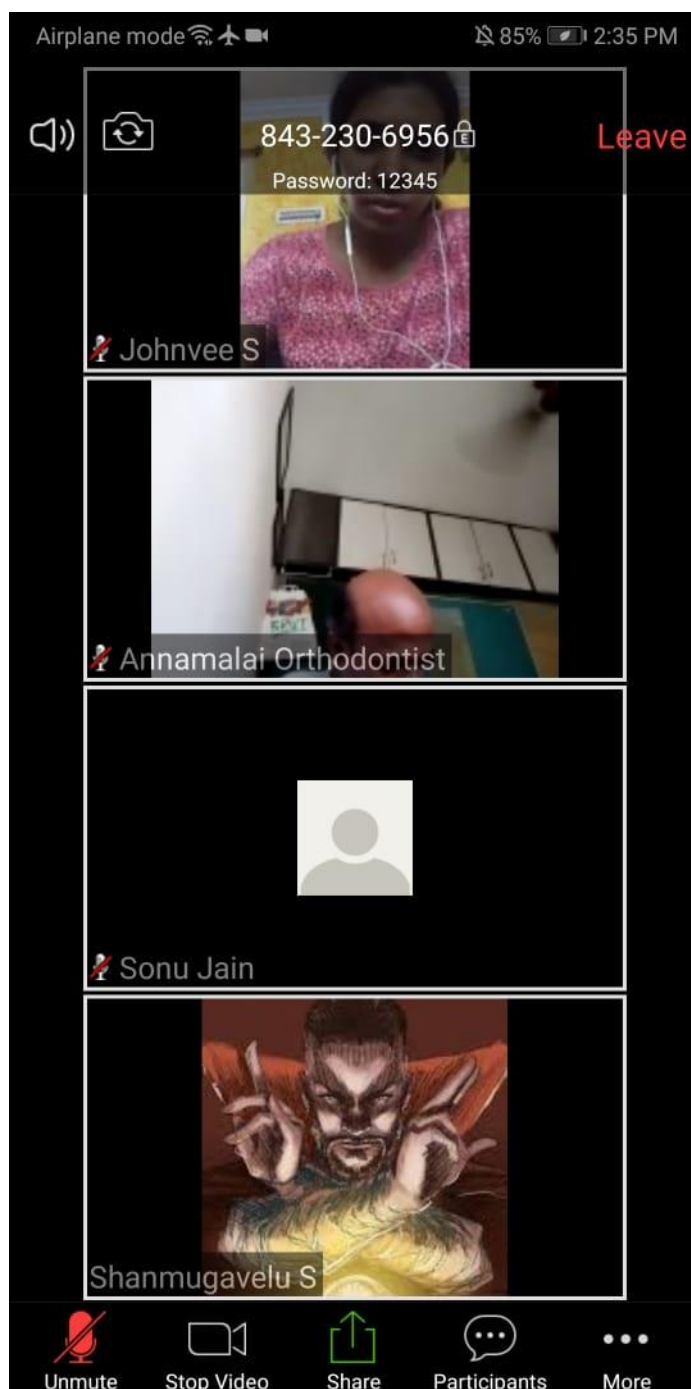
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**Chettinad**  
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**15.05.2020**



## **REVISION TEST CONDUCTED**

TOPIC	STUDENTS ATTENDED
Cephalometrics	07

Key1. CEPHALOMETRICS

- A scientific study of the measurements of the head with specific reference points, used for evaluation of facial growth and development, including soft tissue profile - Graber's.

Cephalostat

- A head-positioning device used in dental radiology, and other procedures requiring exact positioning of the head.
- Patient's head is fixed by 2 ear rods that are inserted into the ear holes so that the upper border of the ear hole rest on the upper part of the ear rod.
- Head centered with cephalostat, is oriented with the FHP parallel to floor and MPR vertical & parallel to the cassette.

## 1) STEINER'S ANALYSIS:

- \* Developed & promoted by Cecil Steiner in 1950
- \* It is considered as the first of the modern cephalometric analysis

### Reference plane:

Steiner use SELLA to NASION (Anterior cranial base) line as a reference plane for his analysis.

### Advantage:

According to Steiner's S-N plane is a best reference because, "If head deviate from true profile position these two mid line points are minimally moved, even if the head rotates in cephalostat."



Steiner's analysis consist of

- ✓ Skeletal analysis
- ✓ Dental analysis
- ✓ Soft tissue analysis

### Skeletal Analysis:

- \* Relate upper & lower jaw with skull & each other in anteroposterior
- \* It consist of 2 angular measurement

SNA angle ( $82 \pm 2$ )

A commonly used measurement



15/5/20

Orthodontics

Essay:

1. Define Cephalometrics, describe Cephalostat, uses of Ceph & Limitation

S.N's

1. Stereo analysis
2. Hold a way photo.

Essay:

### Cephalometrics

Definition:

It is a standardized method of producing skull radiograph which are useful in making measurement of cranium & orofacial complex.

Cephalometrics is a radiographic technique for abstracting the human head into a geometric shape.

### Cephalostat

- The case of cephalostat also called a head holder.
- It is based on the same principle described by Broadbent.
- The patient's head is fixed by 2 ear rods that are inserted into ear holes.



15/5/20

Test.

## Essay :-

### 1. Cephalometrics :-

- Describe the analysis and measurements made on cephalometric radiographs.

### Cephalostat :-

- Broadbent and Hofrath simultaneously presented a standardised cephalometric technique using high-powered X-Ray machine and head holder called cephalostat.

### Types of Cephalograms :-

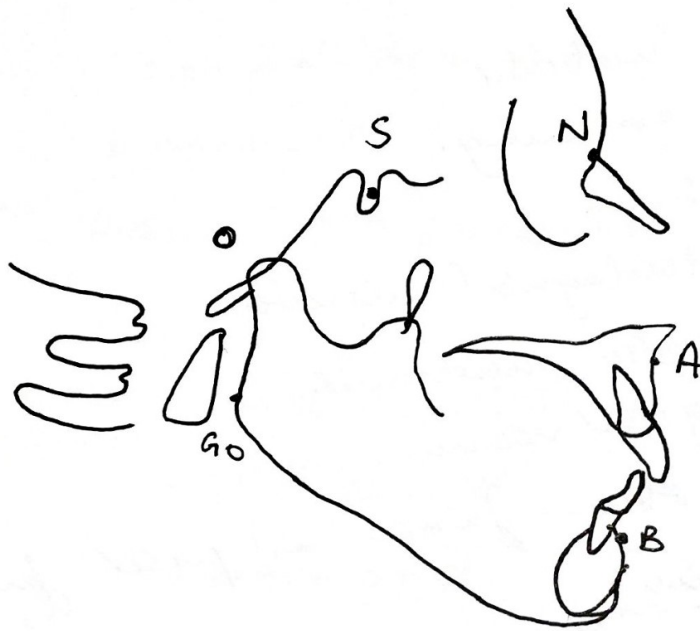
- Lateral
- Frontal

### Uses :-

- Established itself as one of pillars of comprehensive orthodontic diagnosis.
- Most valuable tool in treatment planning and follow up of patients undergoing orthodontic treatment.

### Applications of Cephalometrics :-

- \* Helps in orthodontic diagnosis by enabling the study of skeletal, dental, soft tissue structures of cranio-facial region.

Short Notes :1) Steiner's Analysis :

→ It is divided into three parts i.e.

1) Skeletal analysis:

a) SNA → angle formed by the intersect of s-n plane and line joining the nasion and point A.

mean value  $82^\circ$ .

b) SNB angle → It is an angle between the s-n plane and a line joining nasion to point B.

Average value is  $80^\circ$ .

## Essay:

### 1. Cephalometrics:

Cephalometria is a radiography. "Cephalometric radiography is a standardized method of producing skull radiography which are useful in making measurement of cranium and the orofacial complex."

Cephalometrics is a radiograph technique for abstracting the human head into a geometric shape.

### Cephalostat:

✓ The cephalometric radiographs are taken by an x-ray source called "cephalostat"

✓ Cephalostat position the patient head in the dimension to receive the x-ray beam.

✓ The distance between the x-ray source and the mid-sagittal plane of the patient is fixed at 5 feet.

✓ Frankfurt horizontal plane of the patient is oriented parallel to floor by means of ear rod inserted in external acoustic meatus and orbital pointer.



1) Essay :-

Define cephalometrics, describe cephalostat, uses and limitations of cephalometrics.

Origin - 'Cephalo' means head & 'Metric' is measurement.

Define :-

"The Scientific measurement of the bones of cranium & face, utilizing a fixed, reproducible position for lateral radiographic exposure of skull & facial bones".

Cephalostat :-

\* The use of cephalostat, also called as head holder is based on principle of Broadbent

\* The patient's head is fixed by 2 ear rods that are inserted into ear ~~holes~~ holes.

\* The head which is centered in cephalostat is oriented with FH plane parallel to floor & mid sagittal plane parallel & vertical to cassette.

\* The standardized FH plane is achieved by placing the infra orbital pointer at patient's orbit & then adjusting the head vertically until the pointer & ear rods are at same level.



**16.05.2020**



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**SEMINAR  
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<b>S.No</b>	<b>Date</b>	<b>Seminar topic</b>	<b>Seminar taken by Intern</b>	<b>No of students participate d</b>
1	16.05.2020	Delayed incisor eruption	Dr. Yuganthi	07

16.05.2020



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Close Participants (20)

- P vishanth
- Prema Anbarasu
- P Priyanga.V
- Revanth Kumar
- Saravanakumar Subramani...
- Shanmugavelu S
- SJ Sonu Jain
- SR Sriharika Raavi
- SUSHMITHA RAM
- YJ Yamini Jeyaraj
- YD Yuganthi Durai

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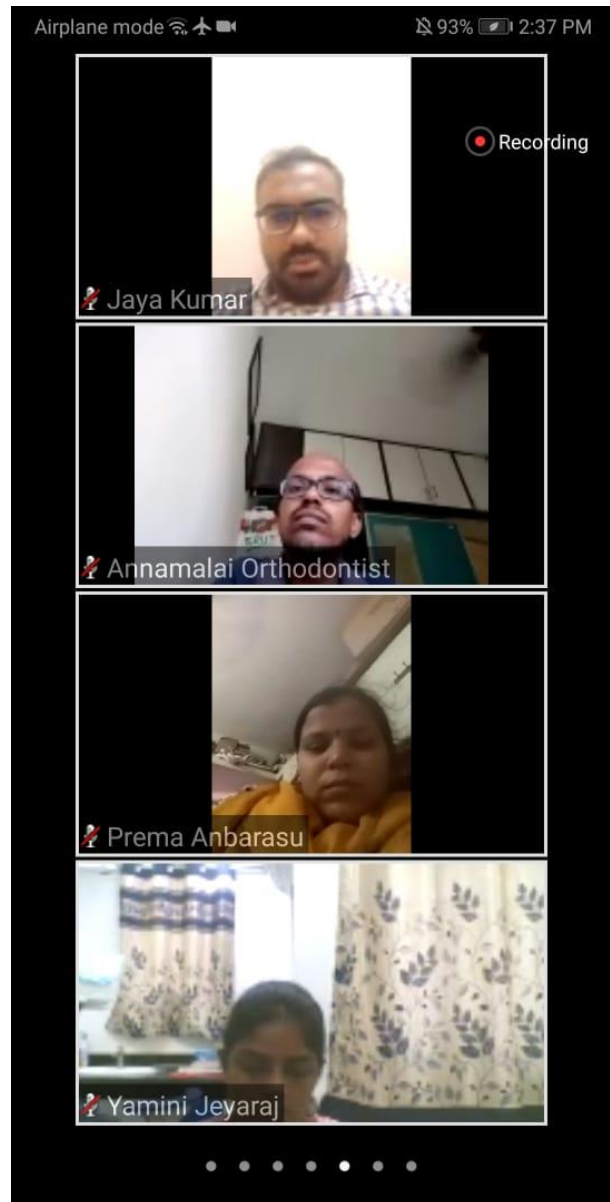
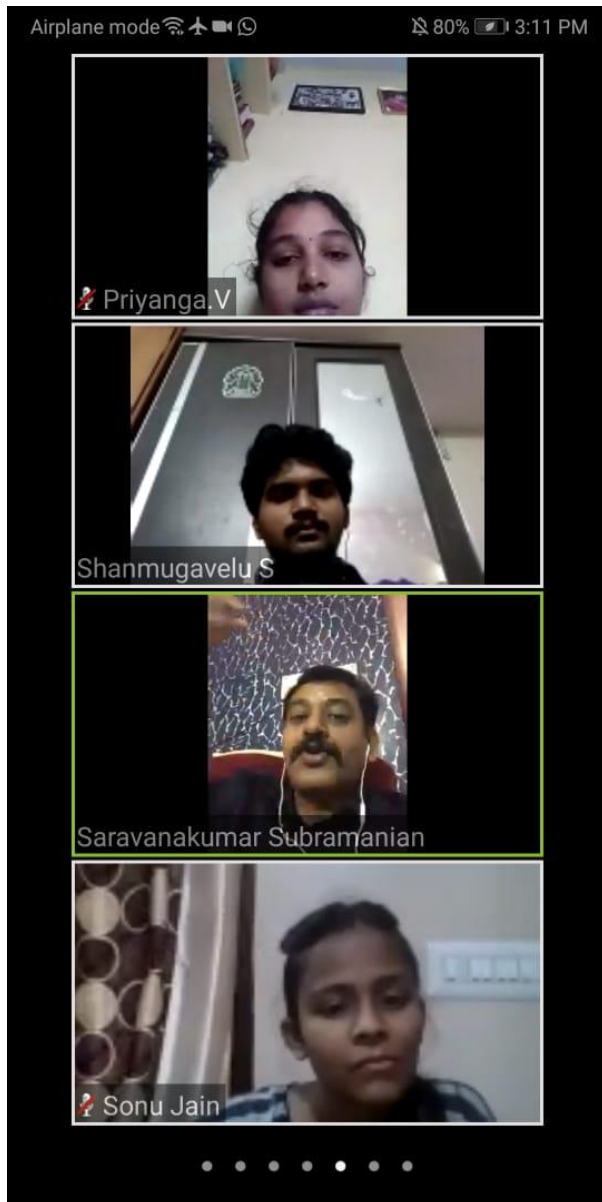
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- SR Subhashini Raju (me)
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- Harish P
- Hema Suresh
- Jaya Kumar
- Jayabalan C
- Jineesh M
- Johnvee S
- P vishanth
- Prema Anbarasu


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Sonu Jain



Jaya Kumar



Johnvee S



Revanth Kumar

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P vishanth



Nivethitha Bhaskar



Priyanga.V



Hema Suresh



16.05.2020



**16.05.2020**

## **REVISION TEST CONDUCTED**

<b>TOPIC</b>	<b>STUDENTS ATTENDED</b>
Skeletal maturity indicators and fixed appliances	07

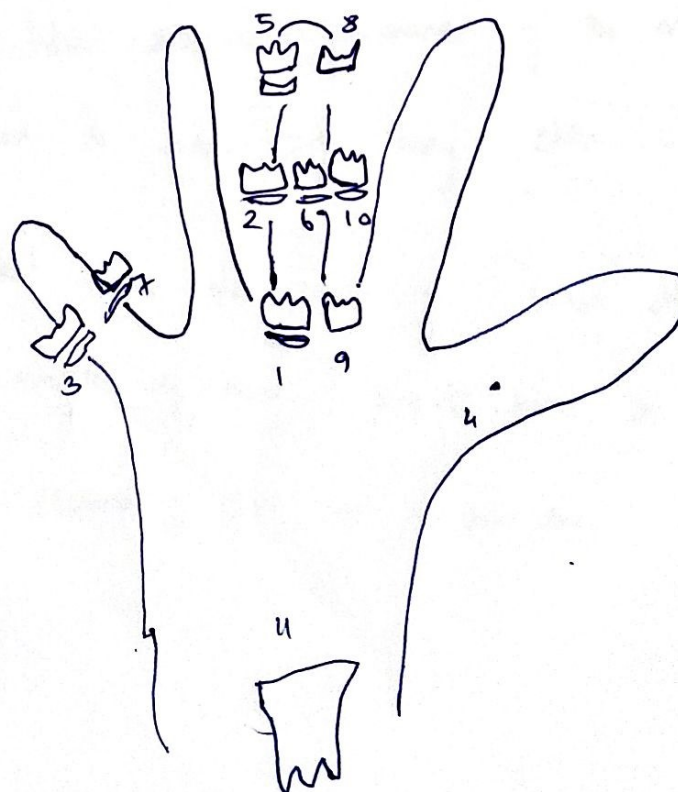
1. SKELTAL NATURALITY INDICATORS

The skeletal age is determined from the skeletal development  
 & morphologic age and onset of puberty

Methods

- Hand wrist radiographs
- Cervical vertebrae
- Stages of tooth development
- Mid palatal suture
- Cephal index
- Tooth mineralization

Peterson method



16/5/20

Essay:

1. Classify skeletal maturity indicators.  
Detail about Björk's grade & Brown method.

S.N:

1. Describe components of fixed appliances.
2. CVM method.

Classification of skeletal maturity indicators:

\* Hand wrist radiographs.

\* Cervical vertebrae.

\* Mid palatine suture

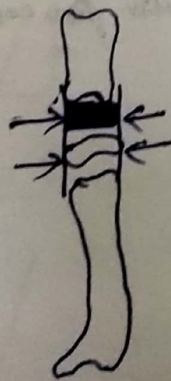
\* Corpus index

\* Tooth mineralization

Björk's Grade & Brown Method:

They have divided skeletal development into 9 stages.

Stage One: (Males 10.6y, females 8.1y):



\* Epiphysis & diaphysis of the proximal phalanx of index finger are equal.

\* It occurs approximately 3 years before the peak of pubertal growth spurt.



16/5/20

## Test

### 1) SKELETAL MATURITY INDICATORS

#### classification:-

- Hand wrist radiographs
  - Atlas method by Greulich and Pyle
  - Bjork, Grave and Brown method
  - Fishman's skeletal maturity indicators
  - Hagg and Taranger method.
- Evaluation of skeletal maturation using cervical vertebrae.
- Assessment of maturity by clinical and radiographic examination of different stages of tooth development.

#### BJORK, GRAVE & BROWN method:-

Divided skeletal development into 9 stages:-

\* Stage 1 - (male 10.6 y, females 8.1 y) :-

- Epiphysis and diaphysis of proximal phalanx of index finger are equal.
- Occurs 3 years before peak of pubertal growth spurt.