

RASHID LATIF DENTAL COLLEGE

DEPARTMENT OF ORTHODONTICS LOG BOOK

INDEX

Sr. No	Topics
1.	Clinical Work Record
2.	Components of Clinical Orthodontics
3.	Case History & Clinical Examination
4.	Removable Appliances
5.	Cast Analysis
6.	Bolton Analysis
7.	Permanent (Adult) Space Analysis
8.	Mixed Dentition Space Analysis
9.	Cephalometric Analysis

CLINICAL WORK RECORD

CREDIT REQUIRED	CREDIT COMPLETED	SUPERVISOR SIGNATURE
Case History & Clinical Examination		
Removable appliances 4 cases		
Cast analysis 4 cases		
Bolton analysis 2 cases		
Adult space analysis 2 cases		
Mixed dentition space analysis 2 cases each		
Cephalometric Analysis 4 cases		

COMPONENTS OF CLINICAL ORTHODONTICS

1. History & Clinical examination

2. Removable appliances:

- Wire bending exercises including
 1. Adams clasps
 2. Labial bow
 3. Palatal finger springs
 4. Z springs
- Fabrication of removal appliances

3. Cast Analysis:

1. General cast analysis
2. Bolton analysis
3. Mixed dentition analysis
4. Adult/permanent space analysis

4. Radiographic analysis:

1. Lateral Cephalogram
2. OPG

CLINICAL EXAMINATION AND HISTORY TAKING

HISTORY & CLINICAL EXAMINATION

PATIENT INFORMATION

Patient Name			
Age/ Gender		Date of Birth	
Address			
Contact No			

HISTORY

PRESENTING COMPLAINT	
-----------------------------	--

1. MEDICAL HISTORY

Checklist for each condition

Bleeding disorders	Y	N	Cleft Lip &/or Palate	Y	N
Anemia	Y	N	Adenoids	Y	N
Congenital/IHD	Y	N	Tonsilitis	Y	N
Diabetes:	Y	N	Salivary Gland Disorders	Y	N
Gout/Arthritis	Y	N	Tuberculosis	Y	N
Hepatitis:	Y	N	Epilepsy/Seizures	Y	N
HIV	Y	N	Nervous disorders	Y	N
Tumor	Y	N	Immunized	Y	N
Kidney Disorder	Y	N	Allergies	Y	N
Asthma	Y	N	H/O Trauma	Y	N
GIT Infection	Y	N	H/O Surgical Procedure:	Y	N
Speech/ Hearing Problems	Y	N	Other Endocrinal disorders	Y	N
Infective Endocarditis	Y	N	Others		

HISTORY & CLINICAL EXAMINATION

PATIENT INFORMATION

Patient Name			
Age/ Gender		Date of Birth	
Address			
Contact No			

HISTORY

PRESENTING COMPLAINT	
-----------------------------	--

1. MEDICAL HISTORY

Checklist for each condition

Bleeding disorders	Y	N	Cleft Lip &/or Palate	Y	N
Anemia	Y	N	Adenoids	Y	N
Congenital/IHD	Y	N	Tonsillitis	Y	N
Diabetes:	Y	N	Salivary Gland Disorders	Y	N
Gout/Arthritis	Y	N	Tuberculosis	Y	N
Hepatitis:	Y	N	Epilepsy/Seizures	Y	N
HIV	Y	N	Nervous disorders	Y	N
Tumor	Y	N	Immunized	Y	N
Kidney Disorder	Y	N	Allergies	Y	N
Asthma	Y	N	H/O Trauma	Y	N
GIT Infection	Y	N	H/O Surgical Procedure:	Y	N
Speech/ Hearing Problems	Y	N	Other Endocrinal disorders	Y	N
Infective Endocarditis	Y	N	Others		

History of hospitalization

If yes, explain

History of medicine intake

Hx of hepatitis

Hx of allergies

2. Dental History

PREVIOUS DENTAL TREATMENT					
Fillings	Y	N	Extractions	Y	N
Scaling	Y	N	Others		

3. Family History:

4. Habits:

Thumb/digit Sucking	Y	N	Prolonged bottle feeding	Y	N
Teeth Grinding	Y	N	Smoking	Y	N
Lip biting	Y	N	Pan Chewing	Y	N
Tongue thrust	Y	N	Tobacco Chewing	Y	N
Mouth breathing	Y	N	Beetle nut Chewing	Y	N

CLINICAL EXAMINATION:

Extraoral Examination:

FRONTAL EXAMINATION

- **Head form:** Dolichocephalic / Mesocephalic / Brachycephalic
- **Facial Type:** Euryprosopic / Mesoprosopic / Laptoprosopic
- **Facial Symmetry:** Symmetric / asymmetric
- **Facial Height (Vertical Proportion of face):**

Well balanced / disproportionate

UFH: _____

MFH: _____

LFH: _____

- **Lips:**

Lip Seal: Competent / Incompetent

Lip Thickness: Upper Lip Thick / Thin / Average

Lower Lip Thick / Thin / Average

- **Chin:**

Normal / Protruded / Retruded

Mentalis: Contracted / Relaxed

- **Smile Evaluation:**

a. Gum show (gummy smile):

b. Incisor Show: upper _____ Lower _____

c. Smile Arc: Consonant / Inconsonant

d. Buccal Corridors: Present / Absent

e. Cant of Occlusion:

- **Swallowing behavior:** Infantile/ Mature

- **Speech:**

- Normal / Disturbed

PROFILE EXAMINATION

Facial Profile	Convex	Straight	Concave
Mandibular plane angle	Normal	Open	Closed
Maxilla in Sagittal	Orthognathic	Prognathic	Retrognathic
Mandible in Sagittal	Orthognathic	Prognathic	Retrognathic
Growth Pattern	Normal	Forwards	Downwards

TEMPOROMANDIBULAR JOINT EVALUATION

(Functional Analysis):

Clicking sounds	Y	N
Tenderness:	Y	N
Mouth opening:	mm	
Right excursion	mm	
Left excursion	mm	
Protrusion	mm	
CO-CR shift		

Intraoral Examination

Oral Hygiene:	Good	Average	Poor
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Labial Frenum:	High attached	normal	Low attached
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Tongue:	Size	Normal	Enlarged
	Mobility	Normal	Abnormal

Dentition:

Primary / Mixed / Permanent	
Supernumerary teeth	
Missing teeth	
Malformed teeth	
Impacted teeth	
Ectopic erupted	
Delayed eruption	
Retained teeth	
Rotations	

Defects on Tooth Surface	
Pitting	
Fracture	
Caries	
Discolorations	
Any other abnormality	

Labial Segment:

Incisor Classification: _____

- Proclined / Normal / Retroclined
- Crowding / Spacing
- Anterior open bite: Yes / No

Teeth Relationship:

Over jet: _____ mm

Overbite: _____ mm

Canine: Right: _____ Left: _____

Molar: Right: _____ Left: _____

Open Bite	Anterior	Posterior	Absent
Cross Bite	Anterior	Posterior	Absent
	Unilateral		Bilateral

Midlines		
Facial	Coinciding	Non-coinciding
Dental	Coinciding	Shifted to _____ by _____ mm

DIAGNOSIS

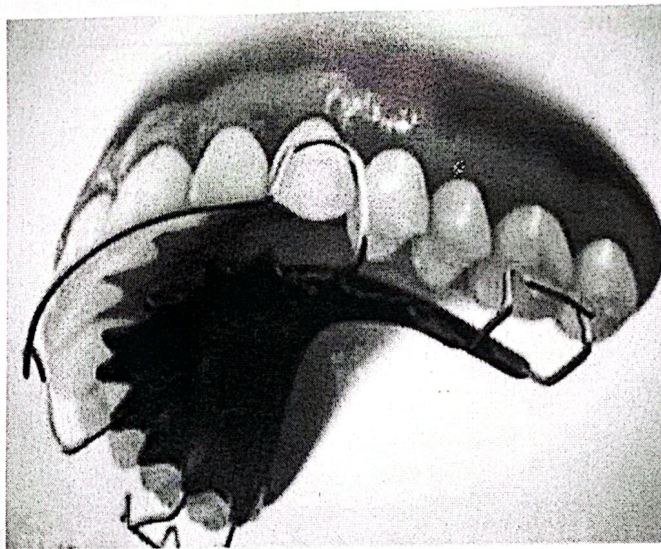
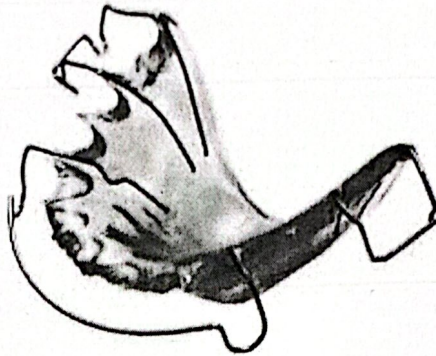
Design	
Wire work	
Insertion	

Date: _____

Supervisor Signature: _____

Diagnosis	
Design	
Wire work	
Wax pattern	
Insertion	

REMOVABLE APPLIANCES



REMOVABLE APPLIANCE EXERCISE NO:1

Diagnosis		Supervisor Signature
Design		
Wire work		
Wax pattern		
Insertion		

REMOVABLE APPLIANCE EXERCISE NO:2

Diagnosis		Supervisor Signature
Design		
Wire work		
Wax pattern		
Insertion		

REMOVABLE APPLIANCE EXERCISE NO:3

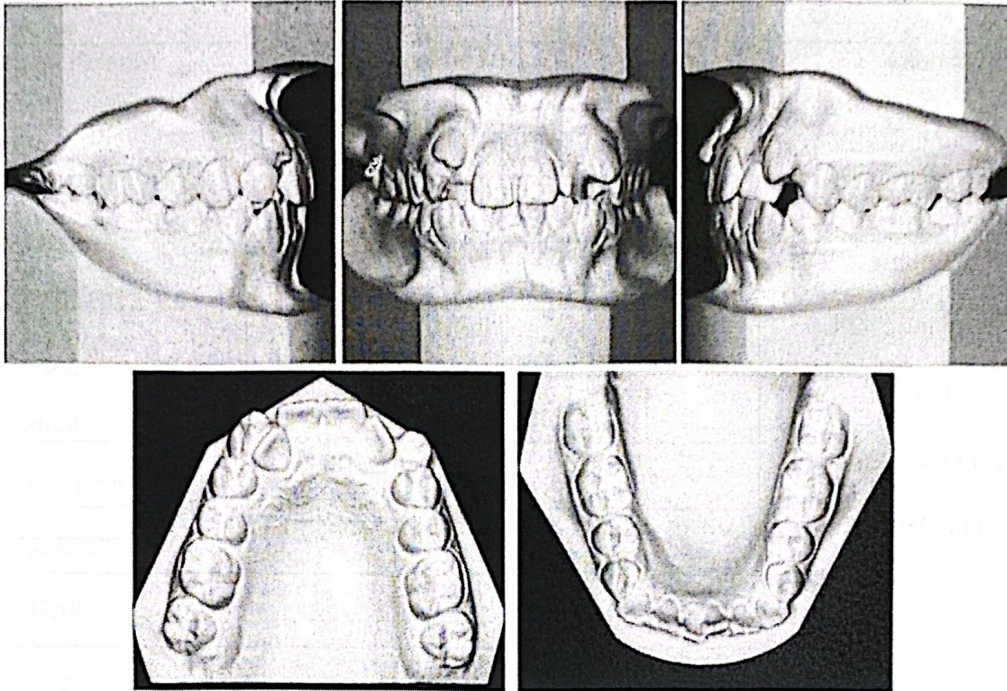
Diagnosis		Supervisor Signature
Design		
Wire work		
Wax pattern		
Insertion		

REMOVABLE APPLIANCE EXERCISE NO:4

Diagnosis		Supervisor Signature
Design		
Wire work		
Wax pattern		
Insertion		

STUDY CASTS:

GENERAL CAST ANALYSIS



GENERAL CAST ANALYSIS

EXERCISE NO:1

MANDIBULAR ARCH			
Arch shape		Crowding	
Symmetry		Torsiversion	
Teeth present		Labioversion	
Teeth missing		Linguoversion	
Supernumerary		Supraversion	
Retained teeth		Infraversion	
Diastema		Curve of Spee Rt	
Proclined teeth		Curve of Spee Lt	
Retroclined teeth		Any other abnormality _____	

MAXILLARY CAST			
Arch shape		Proclined teeth	
Symmetry		Retroclined teeth	
Palatal Vault depth		Crowding	
Teeth present		Torsiversion	
Teeth missing		Labioversion	
Supernumerary		Linguoversion	
Retained teeth		Supraversion	
Diastema		Infraversion	
Any other abnormality _____			

CASTS IN OCCLUSION:

Over jet: _____ mm

Overbite: _____ mm

Incisor Relation _____

Canine: Right: _____ Left: _____

Molar: Right: _____ Left: _____

Dental Midline: _____

CROSSBITE:

Buccal: _____

Lingual: _____

Single tooth: _____

Unilateral: _____

Bilateral: _____

Diagnosis:

Date: _____

Supervisor Signature: _____

GENERAL CAST ANALYSIS

EXERCISE NO.2

MANDIBULAR ARCH			
Arch shape		Crowding	
Symmetry		Torsiversion	
Teeth present		Labioversion	
Teeth missing		Linguoversion	
Supernumerary		Supraversion	
Retained teeth		Infraversion	
Diastema		Curve of Spee Rt	
Proclined teeth		Curve of Spee Lt	
Retroclined teeth		Any other abnormality	

MAXILLARY CAST			
Arch shape		Proclined teeth	
Symmetry		Retroclined teeth	
Palatal Vault depth		Crowding	
Teeth present		Torsiversion	
Teeth missing		Labioversion	
Supernumerary		Linguoversion	
Retained teeth		Supraversion	
Diastema		Infraversion	
Any other abnormality			

GENERAL CAST ANALYSIS

EXERCISE NO.2

MANDIBULAR ARCH			
Arch shape		Crowding	
Symmetry		Torsiversion	
Teeth present		Labioversion	
Teeth missing		Linguoversion	
Supernumerary		Supraversion	
Retained teeth		Infraversion	
Diastema		Curve of Spee Rt	
Proclined teeth		Curve of Spee Lt	
Retroclined teeth		Any other abnormality	

MAXILLARY CAST			
Arch shape		Proclined teeth	
Symmetry		Retroclined teeth	
Palatal Vault depth		Crowding	
Teeth present		Torsiversion	
Teeth missing		Labioversion	
Supernumerary		Linguoversion	
Retained teeth		Supraversion	
Diastema		Infraversion	
Any other abnormality			

CASTS IN OCCLUSION:

Over jet: _____ mm

Overbite: _____ mm

Incisor Relation _____

Canine: Right: _____ Left: _____

Molar: Right: _____ Left: _____

Dental Midline: _____

CROSSBITE:

Buccal: _____

Lingual: _____

Single tooth: _____

Unilateral: _____

Bilateral: _____

Diagnosis:

Date: _____

Supervisor Signature: _____

GENERAL CAST ANALYSIS

EXERCISE NO.3

MANDIBULAR ARCH			
Arch shape		Crowding	
Symmetry		Torsiversion	
Teeth present		Labioversion	
Teeth missing		Linguoversion	
Supernumerary		Supraversion	
Retained teeth		Infraversion	
Diastema		Curve of Spee Rt	
Proclined teeth		Curve of Spee Lt	
Retroclined teeth		Any other abnormality _____	

MAXILLARY CAST			
Arch shape		Proclined teeth	
Symmetry		Retroclined teeth	
Palatal Vault depth		Crowding	
Teeth present		Torsiversion	
Teeth missing		Labioversion	
Supernumerary		Linguoversion	
Retained teeth		Supraversion	
Diastema		Infraversion	
Any other abnormality _____			

CASTS IN OCCLUSION:

Over jet: _____ mm

Overbite: _____ mm

Incisor Relation _____

Canine: Right: _____ Left: _____

Molar: Right: _____ Left: _____

Dental Midline: _____

CROSSBITE:

Buccal: _____

Lingual: _____

Single tooth: _____

Unilateral: _____

Bilateral: _____

Diagnosis:

Date: _____

Supervisor Signature: _____

GENERAL CAST ANALYSIS

EXERCISE NO:4

MANDIBULAR ARCH			
Arch shape		Crowding	
Symmetry		Torsiversion	
Teeth present		Labioversion	
Teeth missing		Linguoversion	
Supernumerary		Supraversion	
Retained teeth		Infraversion	
Diastema		Curve of Spee Rt	
Proclined teeth		Curve of Spee Lt	
Retroclined teeth		Any other abnormality _____	

MAXILLARY CAST			
Arch shape		Proclined teeth	
Symmetry		Retroclined teeth	
Palatal Vault depth		Crowding	
Teeth present		Torsiversion	
Teeth missing		Labioversion	
Supernumerary		Linguoversion	
Retained teeth		Supraversion	
Diastema		Infraversion	
Any other abnormality _____			

STUDY CASTS: BOLTON ANALYSIS

BOLTON ANALYSIS EXERCISE NO:1

Overall ratio (X) = $\frac{\text{Sum of Mandibular 12}}{\text{Sum of Maxillary 12}} \times 100$ (normal= 91.3)

= _____ x 100 = _____

If X > 91.3

Desired Sum of Mandibular 12 = $\frac{\text{Actual sum of max. 12} \times 91.3}{100}$ = _____ X91.3
= _____

Amount of overall excessive Mandibular Tooth Material:

Actual Sum of Mandibular 12 – Desired sum of Mandibular 12 = _____

If X < 91.3

Desired Sum of Maxillary 12 = $\frac{\text{Actual sum of man. 12}}{91.3} \times 100$ = _____ X100 = _____
= _____

Amount of overall excessive Maxillary Tooth Material:

Actual Sum of Maxillary 12 – Desired sum of Maxillary 12 = _____

Anterior Ratio (Y)

Anterior ratio (Y) = $\frac{\text{Sum of Mandibular 6}}{\text{Sum of Maxillary 6}} \times 100$ (normal= 77.2)

= _____ x 100 = _____

If Y > 77.2

Desired Sum of Mandibular 6 = $\frac{\text{Actual sum of max. 6}}{100} \times 77.2$ = _____ X 77.2 = _____
= _____

Amount of anterior excessive Mandibular Tooth Material:

Actual Sum of Mandibular 6 – Desired sum of Mandibular 6 = _____

If Y < 77.2

Desired Sum of Maxillary 6 = $\frac{\text{Actual sum of man. 6}}{77.2} \times 100$ = _____ X100 = _____
= _____

Amount of anterior excessive Maxillary Tooth Material:

Actual Sum of Maxillary 6 – Desired sum of Maxillary 6 = _____

FINDING: _____

Date:

Supervisor's signature

STUDY CASTS: BOLTON ANALYSIS

BOLTON ANALYSIS EXERCISE NO:1

Overall ratio (X) = $\frac{\text{Sum of Mandibular 12}}{\text{Sum of Maxillary 12}} \times 100$ (normal= 91.3)

= _____ x 100 = _____

If X > 91.3

Desired Sum of Mandibular 12 = $\frac{\text{Actual sum of max. 12} \times 91.3}{100}$ = _____ X91.3
= _____

Amount of overall excessive Mandibular Tooth Material:

Actual Sum of Mandibular 12 – Desired sum of Mandibular 12 = _____

If X < 91.3

Desired Sum of Maxillary 12 = $\frac{\text{Actual sum of man. 12}}{91.3} \times 100$ = _____ X100 = _____
= _____

Amount of overall excessive Maxillary Tooth Material:

Actual Sum of Maxillary 12 – Desired sum of Maxillary 12 = _____

Anterior Ratio (Y)

Anterior ratio (Y) = $\frac{\text{Sum of Mandibular 6}}{\text{Sum of Maxillary 6}} \times 100$ (normal= 77.2)

= _____ x 100 = _____

If Y > 77.2

Desired Sum of Mandibular 6 = $\frac{\text{Actual sum of max. 6}}{100} \times 77.2$ = _____ X 77.2 = _____
= _____

Amount of anterior excessive Mandibular Tooth Material:

Actual Sum of Mandibular 6 – Desired sum of Mandibular 6 = _____

If Y < 77.2

Desired Sum of Maxillary 6 = $\frac{\text{Actual sum of man. 6}}{77.2} \times 100$ = _____ X100 = _____
= _____

Amount of anterior excessive Maxillary Tooth Material:

Actual Sum of Maxillary 6 – Desired sum of Maxillary 6 = _____

FINDING: _____

Date:

Supervisor's signature

CAST ANALYSIS: SPACE ANALYSIS FOR PERMANENT DENTITION(ALD)

SPACE ANALYSIS FOR PERMANENT DENTITION

EXERCISE NO:1

MAXILLA		MANDIBLE	
Space Available		Space Available	
Space Required		Space Required	
ALD		ALD	

Date:

Supervisor's signature

EXERCISE NO:2

MAXILLA		MANDIBLE	
Space Available		Space Available	
Space Required		Space Required	
ALD		ALD	

Date:

Supervisor's signature

CAST ANALYSIS: MIXED DENTITION SPACE ANALYSIS

MIXED DENTITION SPACE ANALYSIS

RADIOGRAPHIC METHOD

EXERCISE NO.1

Space Available	= Arch Perimeter	=	_____mm.			
Space Required	= I + 2X + Ceph. Correction + COS	=	_____mm.			
I	= sum of	<table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border-right: 1px solid black; padding: 0 5px;">2 1</td> <td style="padding: 0 5px;">1 2</td> </tr> </table> on cast	2 1	1 2	=	_____mm.
2 1	1 2					
X	= Estimated sum of	<table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border-right: 1px solid black; padding: 0 5px;">5 4 3</td> <td style="padding: 0 5px;"></td> </tr> </table>	5 4 3		=	_____mm.
5 4 3						
X'	= Radiographic sum of	<table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border-right: 1px solid black; padding: 0 5px;">5 4 3</td> <td style="padding: 0 5px;"></td> </tr> </table>	5 4 3		=	_____mm.
5 4 3						
Y	= sum of	<table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border-right: 1px solid black; padding: 0 5px;"></td> <td style="padding: 0 5px;">e d c</td> </tr> </table> on cast		e d c	=	_____mm.
	e d c					
Y'	= Radiographic sum of	<table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border-right: 1px solid black; padding: 0 5px;"></td> <td style="padding: 0 5px;">e d c</td> </tr> </table>		e d c	=	_____mm.
	e d c					
X	=	$\frac{X' \cdot Y}{Y'}$	=	_____mm.		
Ceph. Correction = (Proposed FMIA – Actual FMIA) x 0.8 = _____mm.						
COS	=	$\frac{\text{Rt. Side} + \text{Lt. Side}}{2} + 0.5$	=	_____mm		
Space Required = I + 2X + Ceph. Correction + COS = _____mm.						
ALD = Space Available -- Space Required = _____mm.						

Space Management Protocol:

Date:

Supervisor's signature

CEPHALOMETRIC ANALYSIS

EXERCISE NO. 1

Read the instructions carefully

Mark the points on the cephalogram

Sella (S)

Nasion (Na)

Sub epistole (Point A)

Supra mentale (Point B)

Anterior nasal spine (ANS)

Posterior nasal spine (PNS)

Pointon (Pog)

Gonion (Go)

Menton (Me)

Orbitale (Or)

Proton (Pr)

Condylion (Co)

Articulare (Ar)

Gonion (Go)

Hy crista (Pr)

Submenton (Sm)

Lateral cephalogram (L)

Lateral cephalogram (L)

Sub menton cephalogram (Sm)

Date:

Supervisor's signature:

CEPHALOMETRIC ANALYSIS



CEPHALOMETRIC ANALYSIS

EXERCISE NO.1

Cephalometric landmarks:

Midsagittal landmarks:

Sella (S)
Nasion (Na)
Sub spinale (Point A)
Supra mentale (Point B)
Anterior nasal spine (ANS)
Posterior nasal spine (PNS)
Pogonion (Pog)
Gnathion (Gn)
Menton (Me)

Bilateral landmarks:

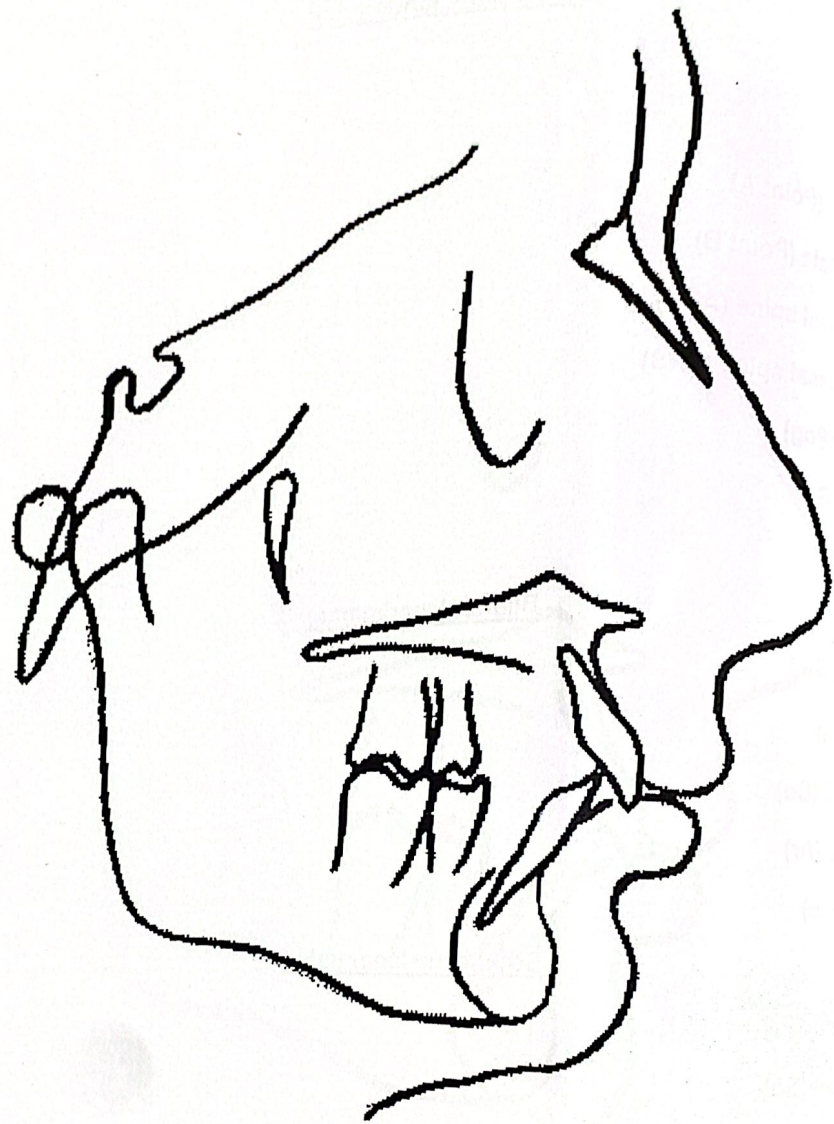
Orbitale (Or)
Porion (Po)
Condylion (Co)
Articulare (Ar)
Gonion (Go)

Soft tissue landmarks:

Tip of nose (Pr)
Subnasale (Sn)
Labrale superiorus (Ls)
Labrale inferior (Li)
Soft tissue pogonion (sPog)

Date:

Supervisor's signature



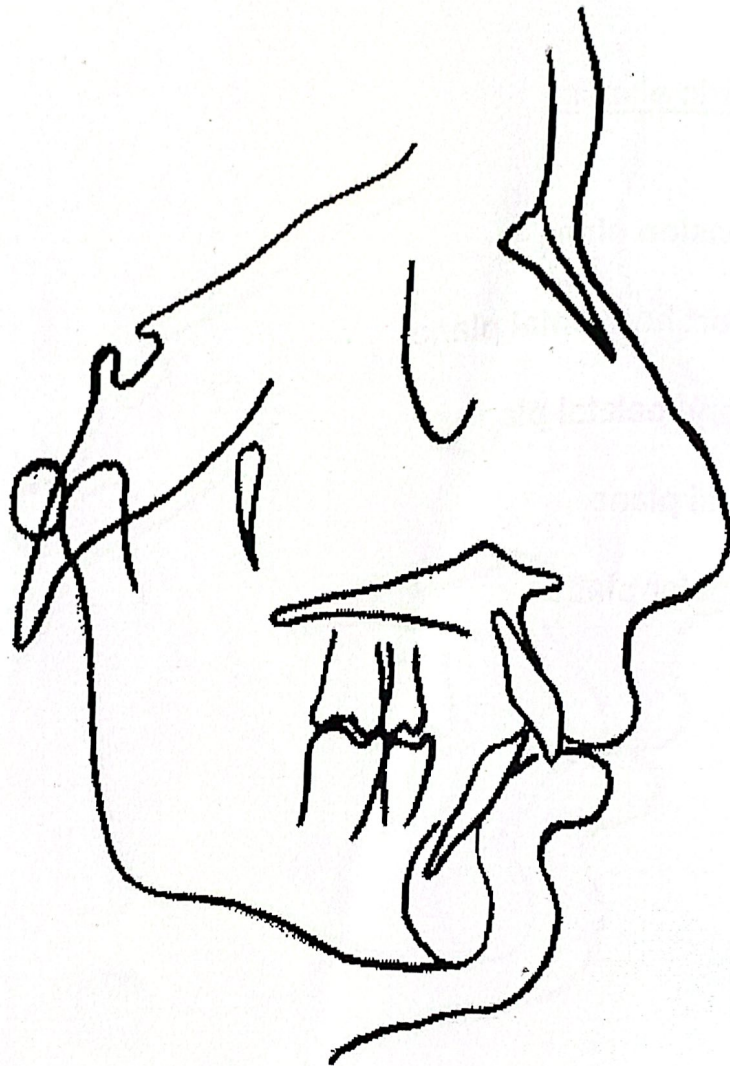
EXERCISE NO.2

Cephalometric planes:

1. Sella nasion plane
2. Frankfort horizontal plane
3. Maxillary/ palatal plane
4. Occlusal plane
5. Mandibular plane

Date:

Supervisor's signature



5.

EXERCISE NO.3

SKELETAL ANALYSIS:

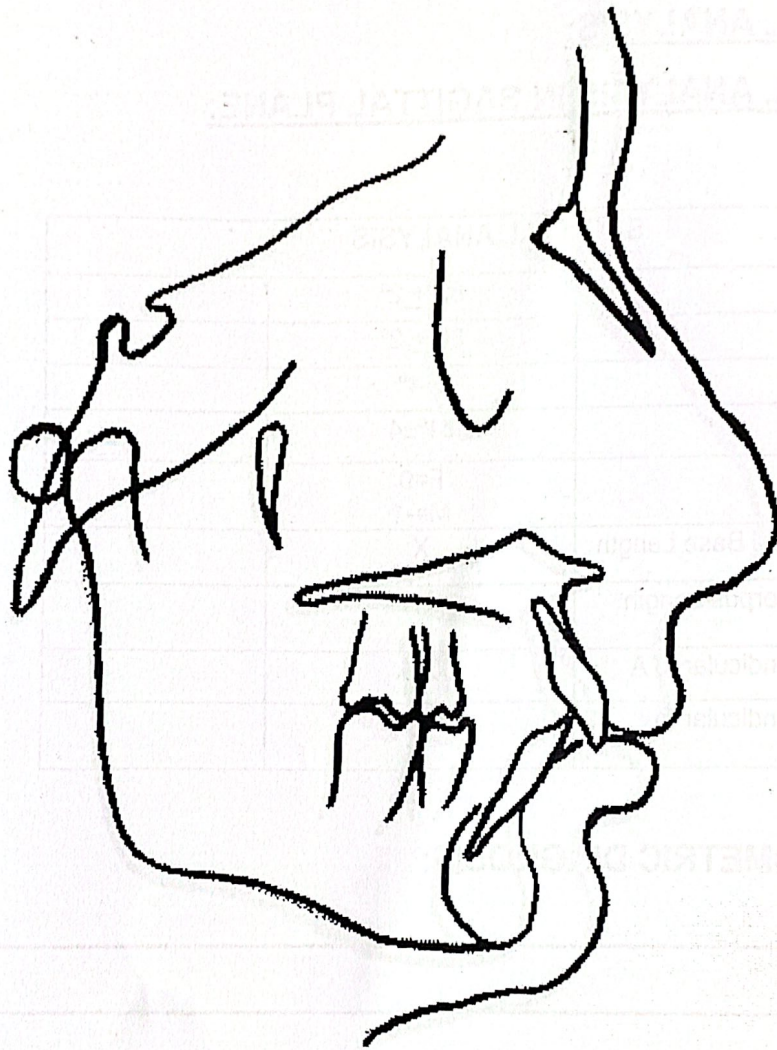
SKELETAL ANALYSIS IN SAGITTAL PLANE:

SAGITTAL ANALYSIS		
< SNA	$82^{\circ} \pm 2^{\circ}$	
< SNB	$80^{\circ} \pm 2^{\circ}$	
< ANB	$0-4^{\circ}$	
Facial Angle	$81^{\circ} \pm 4$	
Witt's Value	F=0 M=-1	
Anterior Cranial Base Length	X	
Mandibular Corpus Length	X+7	
Nasion perpendicular to A	0 ± 1	
Nasion perpendicular to Pogonion	(-2 to -4)	

CEPAHLOMETRIC DIAGNOSIS:

Date:

Supervisor's signature



EXERCISE NO.4

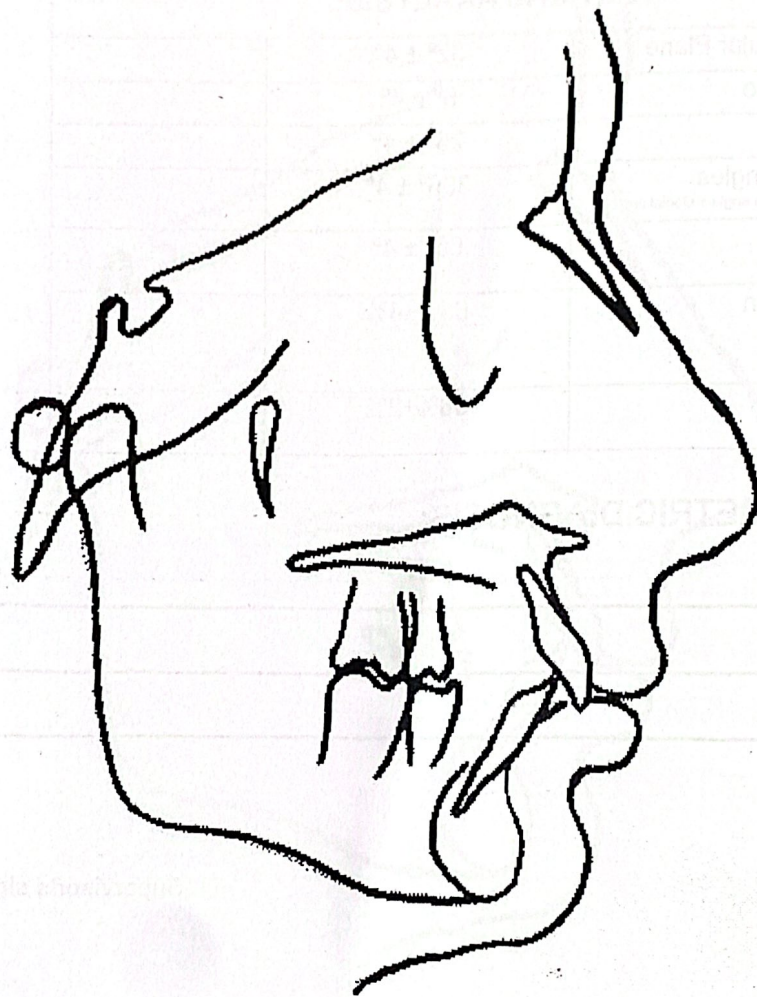
SKELETAL ANALYSIS:

VERTICAL ANALYSIS:		
< SN - Mandibular Plane	$32^{\circ} \pm 4^{\circ}$	
<SN-Palatal line	$6^{\circ} \pm 4^{\circ}$	
<MMA	$25^{\circ} \pm 4^{\circ}$	
Sum of inner angles (Saddle angle + Articulare angle + Gonial angle)	$396^{\circ} \pm 4^{\circ}$	
Y- axis anglè	$66^{\circ} \pm 4^{\circ}$	
Jarabak relation (PFHt/TAFHt)	$65\% \pm 4\%$	
LAFHt/TAFHt	$56\% \pm 2\%$	

CEPAHLOMETRIC DIAGNOSIS:

Date:

Supervisor's signature



EXERCISE NO.5

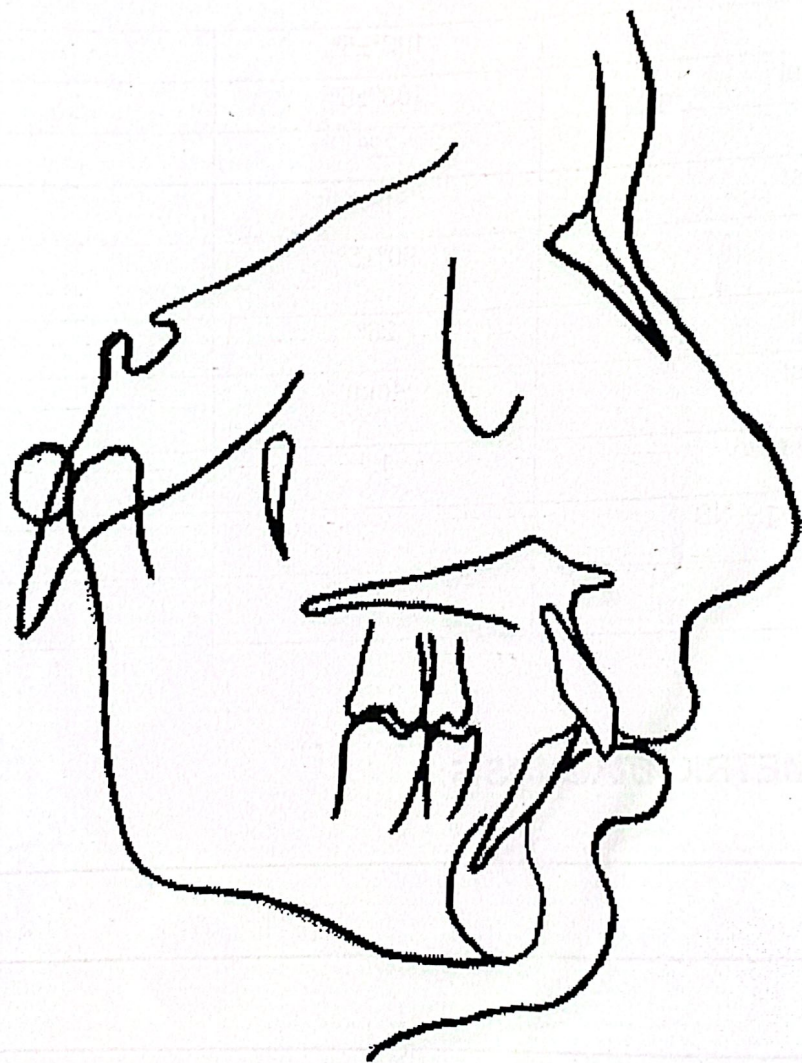
DENTAL ANALYSIS:

DENTAL ANALYSIS		
<UI – SN	102°±5°	
<UI- Palatal	108°±5°	
< UI – NA	22°	
UI - NA dist	4mm	
<IMPA	90°±5°	
< LI – NB	26°	
LI - NB dist	4mm	
Holdaway ratio	1:1	
LI - NB: Pog – NB		
IIA	135°±5°	

CEPAHLOMETRIC DIAGNOSIS:

Date:

Supervisor's signature



EXERCISE NO.6

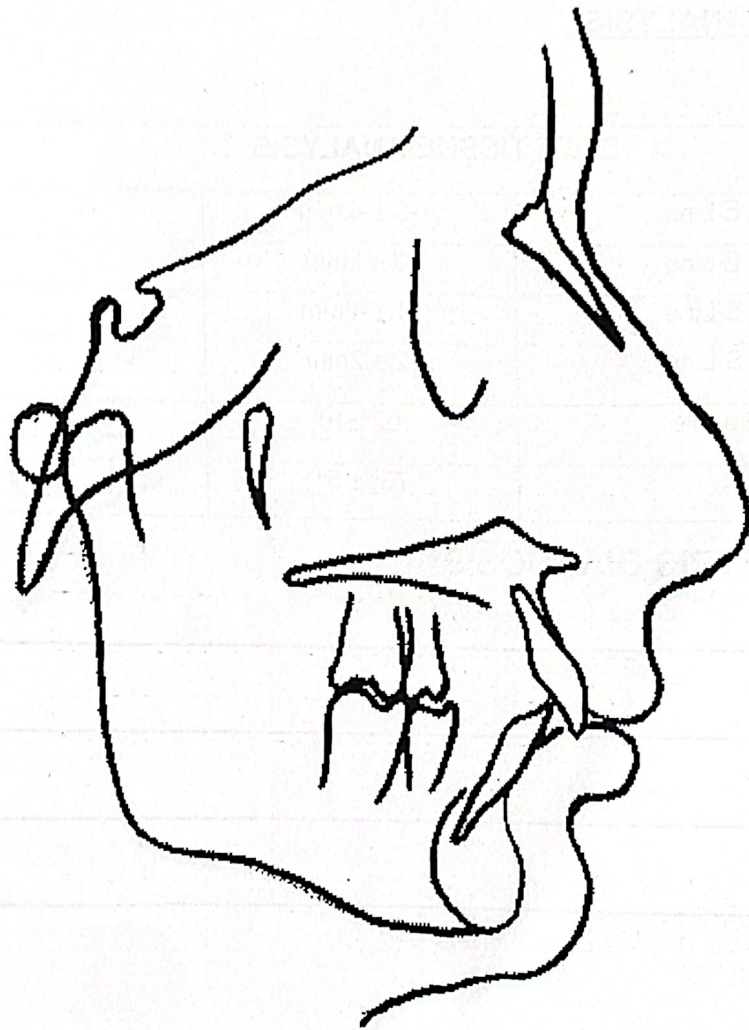
SOFT TISSUE ANALYSIS:

SOFT TISSUE ANALYSIS		
Upper lip to E Line	-3 ± 2mm	
Lower lip to E Line	-2 ± 2mm	
Upper lip to S Line	-3 ± 2mm	
Lower lip to S Line	-2 ± 2mm	
Naso-Labial angle	102°±10°	
Z angle	75° ± 5°	

CEPAHLOMETRIC DIAGNOSIS:

Date:

Supervisor's signature



CEPHALOMETRIC ANALYSIS NO.1

SKELETAL ANALYSIS:

SAGITTAL ANALYSIS		
< SNA	$82^{\circ} \pm 2^{\circ}$	
< SNB	$80^{\circ} \pm 2^{\circ}$	
< ANB	$0-4^{\circ}$	
Facial Angle	$81^{\circ} \pm 4$	
Witt's Value	F=0 M=-1	
Anterior Cranial Base Length	X	
Mandibular Corpus Length	X+7	
Nasion perpendicular to A	0 ± 1	
Nasion perpendicular to Pogonion	(-2 to -4)	

VERTICAL ANALYSIS:		
< SN - Mandibular Plane	$32^{\circ} \pm 4^{\circ}$	
< SN-Palatal line	$6^{\circ} \pm 4^{\circ}$	
< MMA	$25^{\circ} \pm 4^{\circ}$	
Sum of inner angles (Saddle angle + Articulare angle + Gonial angle)	$396^{\circ} \pm 4^{\circ}$	
Y- axis angle	$66^{\circ} \pm 4^{\circ}$	
Jarabak relation (PFHt/TAFHt)	$65\% \pm 4\%$	
LAFHt/TAFHt	$56\% \pm 2\%$	

DENTAL ANALYSIS		
<UI – SN	102°±5°	
<UI- Palatal	108°±5°	
< UI – NA	22°	
UI - NA dist	4mm	
<IMPA	90°±5°	
< LI – NB	26°	
LI - NB dist	4mm	
Holdaway ratio	1:1	
LI - NB: Pog – NB		
IIA	135°±5°	

SOFT TISSUE ANALYSIS		
Upper lip to E Line	-3 ± -2mm	
Lower lip to E Line	-2 ± 2mm	
Upper lip to S Line	-3 ± -2mm	
Lower lip to S Line	-2 ± 2mm	
Naso-Labial angle	102°±10°	
Z angle	75° ± 5°	

Cephalometric Diagnosis:

Sagittal: _____

Vertical: _____

Dental: _____

Soft tissue: _____

TREATMENT PLANNING:

Upper lip to E line		
Lower lip to E line		
Upper lip to S line		
Lower lip to S line		
Upper lip to U line		
Lower lip to U line		
Upper lip to L line		
Lower lip to L line		
Upper lip to I line		
Lower lip to I line		
Upper lip to O line		
Lower lip to O line		
Upper lip to A line		
Lower lip to A line		
Upper lip to B line		
Lower lip to B line		
Upper lip to C line		
Lower lip to C line		
Upper lip to D line		
Lower lip to D line		
Upper lip to E line		
Lower lip to E line		
Upper lip to F line		
Lower lip to F line		
Upper lip to G line		
Lower lip to G line		
Upper lip to H line		
Lower lip to H line		
Upper lip to I line		
Lower lip to I line		
Upper lip to J line		
Lower lip to J line		
Upper lip to K line		
Lower lip to K line		
Upper lip to L line		
Lower lip to L line		
Upper lip to M line		
Lower lip to M line		
Upper lip to N line		
Lower lip to N line		
Upper lip to O line		
Lower lip to O line		
Upper lip to P line		
Lower lip to P line		
Upper lip to Q line		
Lower lip to Q line		
Upper lip to R line		
Lower lip to R line		
Upper lip to S line		
Lower lip to S line		
Upper lip to T line		
Lower lip to T line		
Upper lip to U line		
Lower lip to U line		
Upper lip to V line		
Lower lip to V line		
Upper lip to W line		
Lower lip to W line		
Upper lip to X line		
Lower lip to X line		
Upper lip to Y line		
Lower lip to Y line		
Upper lip to Z line		
Lower lip to Z line		

Date:

Supervisor's signature

Exercise 3

Cephalometric Diagrams

Basal:

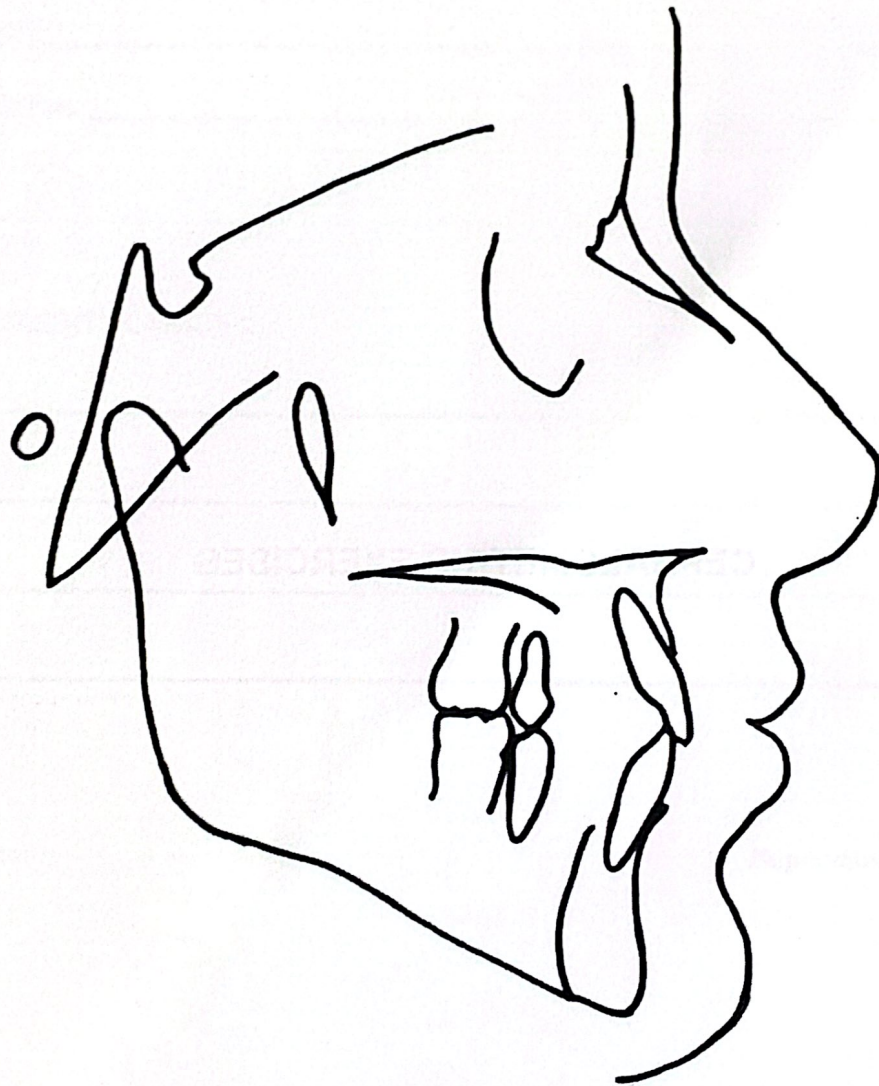
Vertical:

Canal:

Soft tissue:

CEPHALOMETRIC EXERCISES

Exercise 1



Cephalometric Diagnosis:

Sagittal: _____

Vertical: _____

Dental: _____

Soft tissue: _____

Date:

Supervisor's signature

Cephalometric Diagnosis:

Sagittal: _____

Vertical: _____

Dental: _____

Soft tissue: _____

Date:

Supervisor's signature