KMCT
DENTAL COLLEGE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the information in the attached document is verified by me and is true to the best of my knowledge.

PRINCIPAL

Dr. MANOJ KUMAR. K.P
Principal
KMCT Dental College
Manassery, Mukkkam

DETAILS OF SPECIAL PROGRAMMES FOR SLOW PERFORMERS AND ADVANCED LEARNERS

DEPARTMENT OF PEDIATRIC AND PREVENTIVE DENTISTRY

DETAILS OF SPECIAL PROGRAMS FOR SLOW PERFORMERS

Continuous Monitoring and Individual Attention by Mentors: Each student receives personalized attention from assigned mentors who regularly monitor their academic progress, identify areas of improvement, and provide guidance and motivation.

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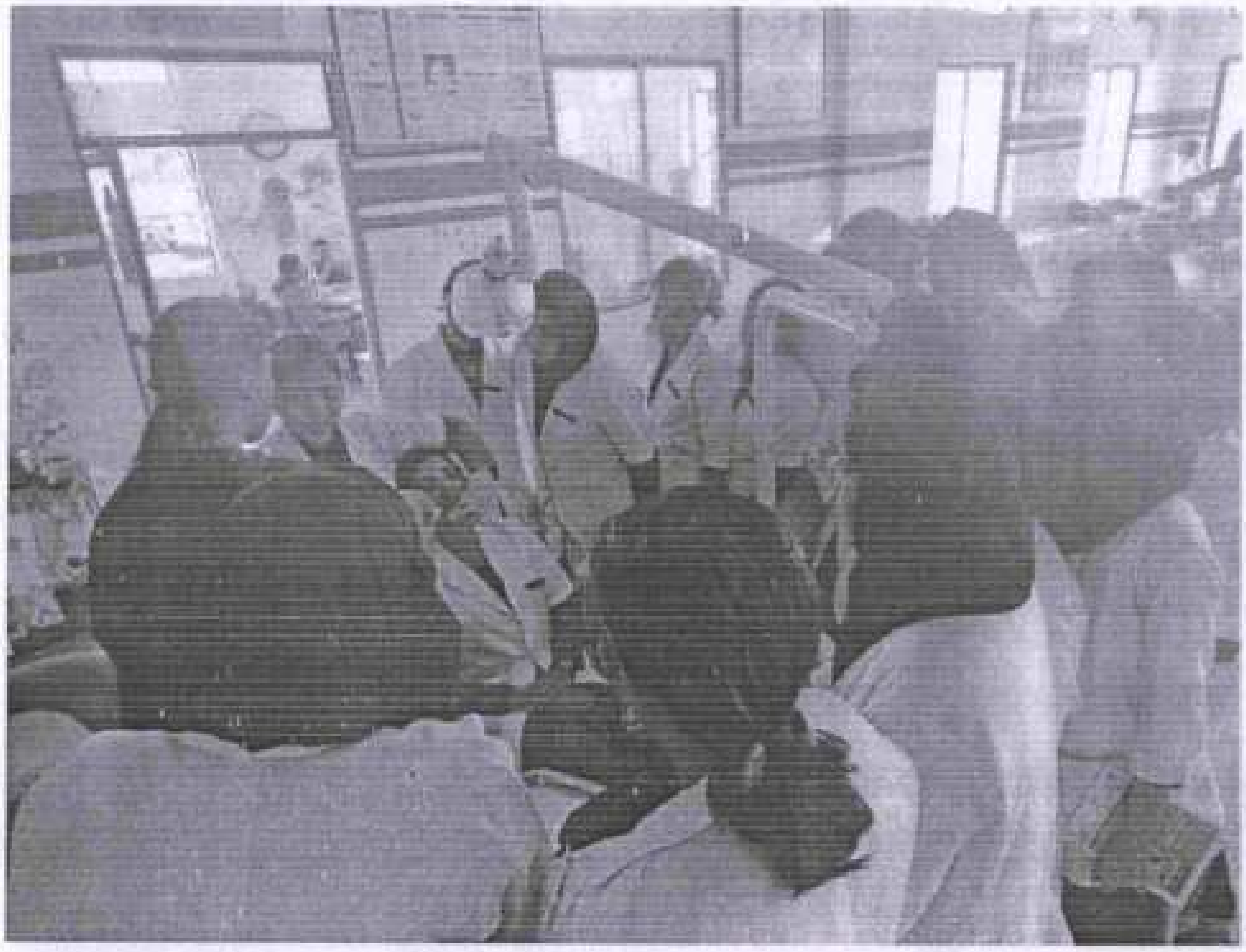
Special Classes with Subject Experts: Slow performers attend additional classes conducted by subject experts. These sessions focus on clarifying concepts, addressing doubts, and providing extra guidance on challenging topics.



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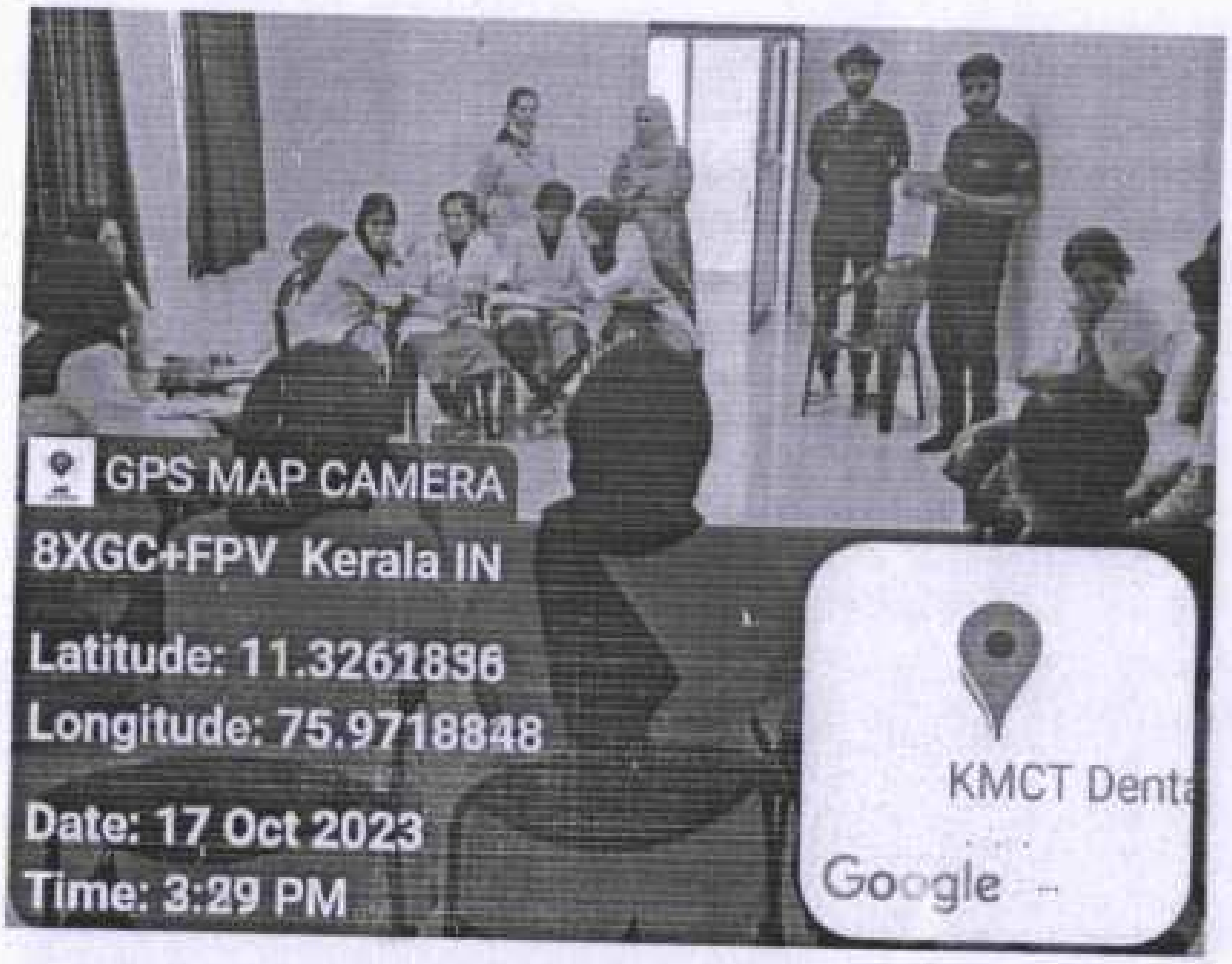
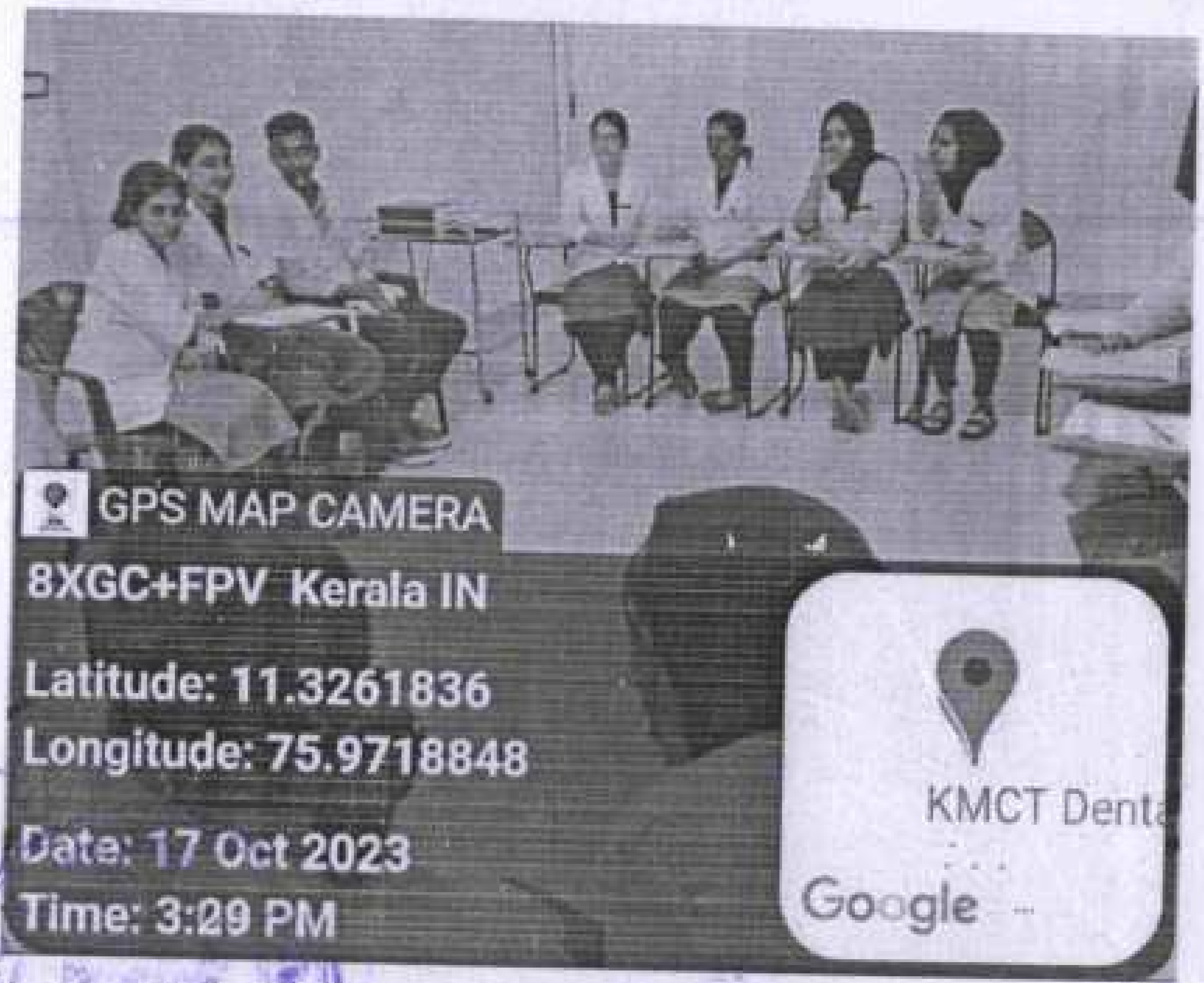
Encouragement of Collaborative Study with Advanced Learners: Collaborative study groups are formed, pairing slow performers with high-achieving peers. This fosters a supportive learning environment where advanced learners mentor and assist their peers in understanding complex subjects.





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Counseling for Students and Parents with Psychologists: Professional counselors conduct regular sessions for both students and parents to address academic concerns, study-related stress, and provide guidance on effective study techniques, enhancing mental well-being. This is done under Happiness Department

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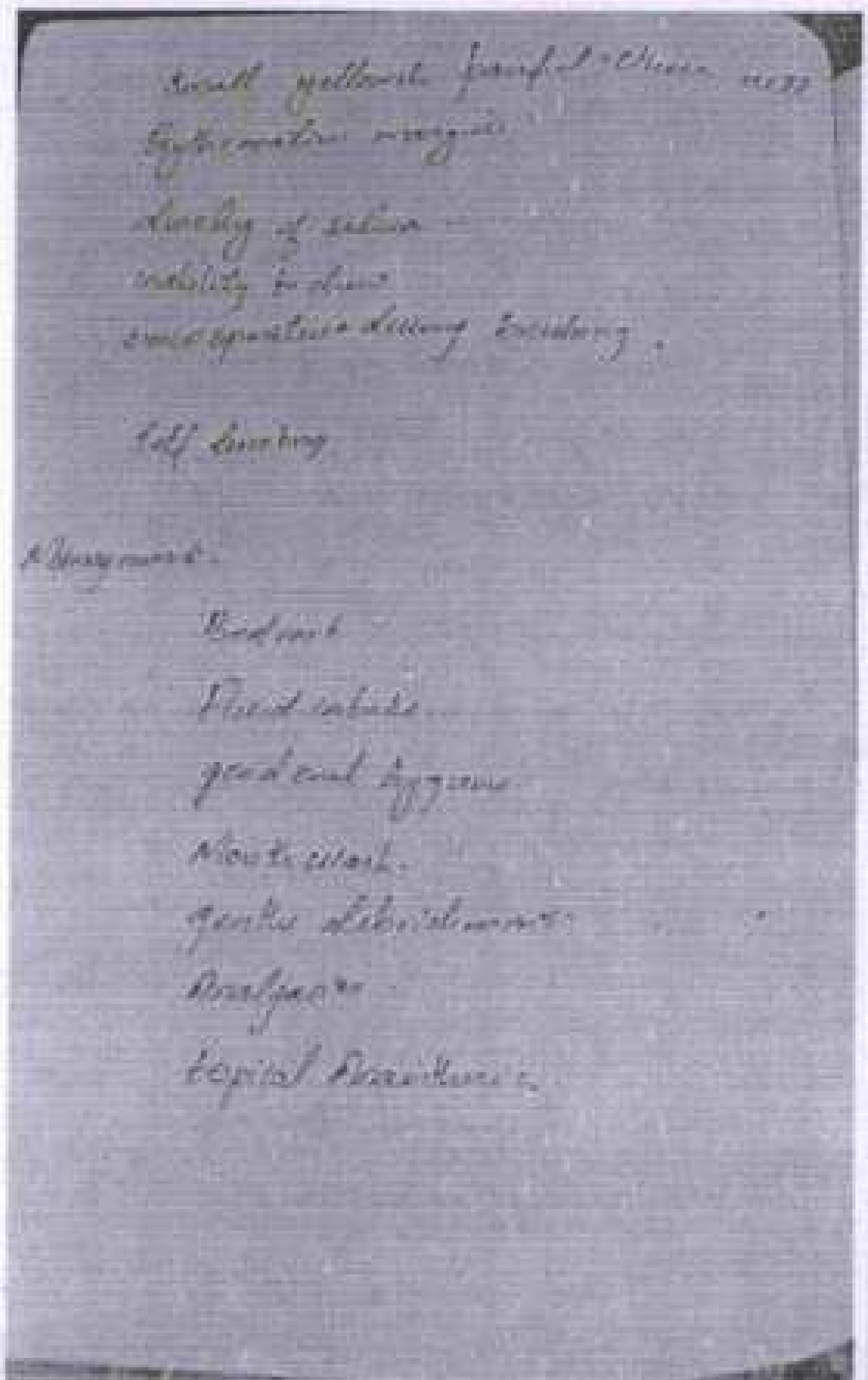
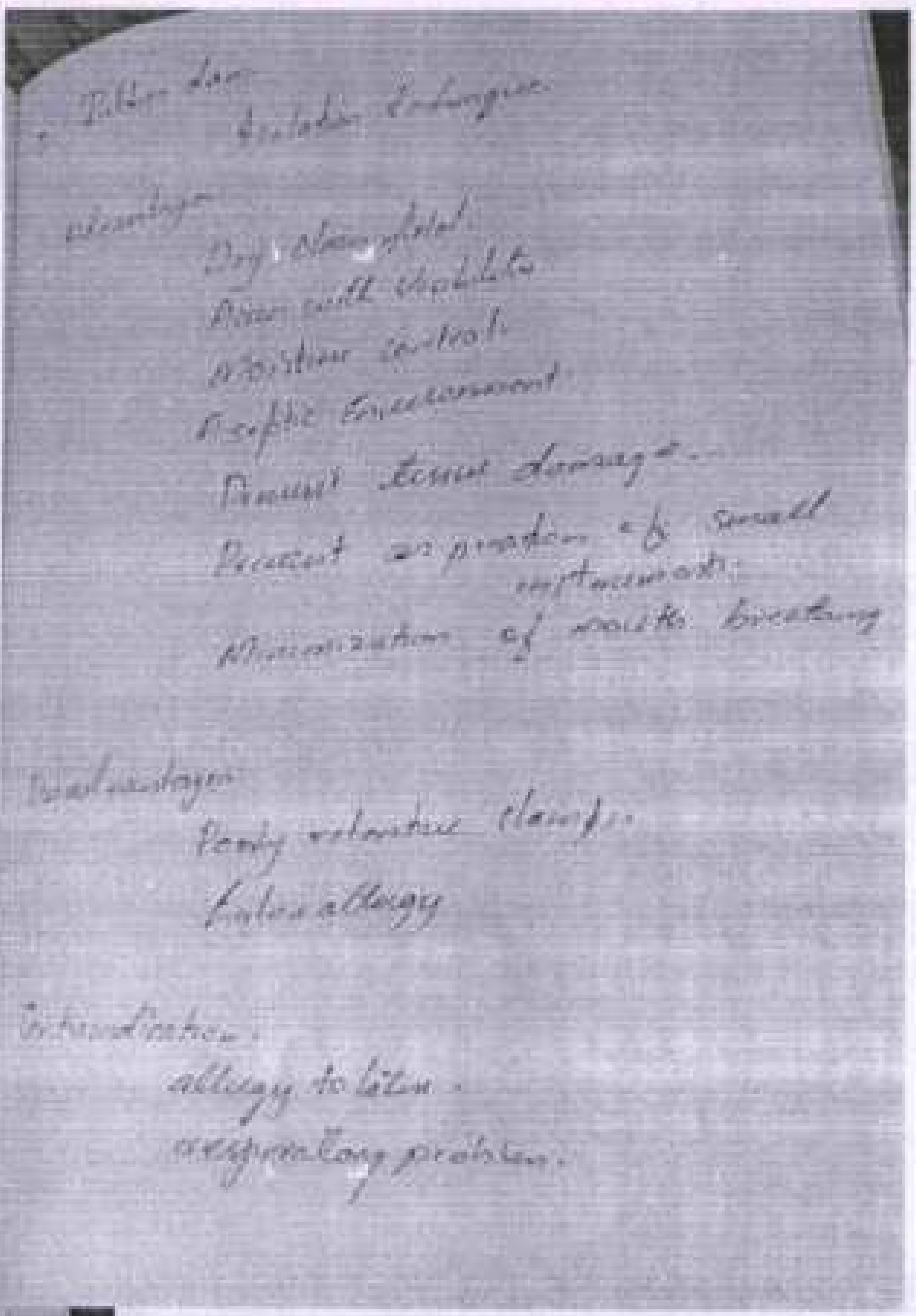


Small yellowish painful ulcers [illegible]
Erythematous margins
Viscosity of saliva
Inability to chew
[illegible] during breathing.

Self cleaning

Management.
Bed rest
Fluid intake.
good oral hygiene
Mouthwash.
gentle debridement.
Analgesics
topical anesthetics.

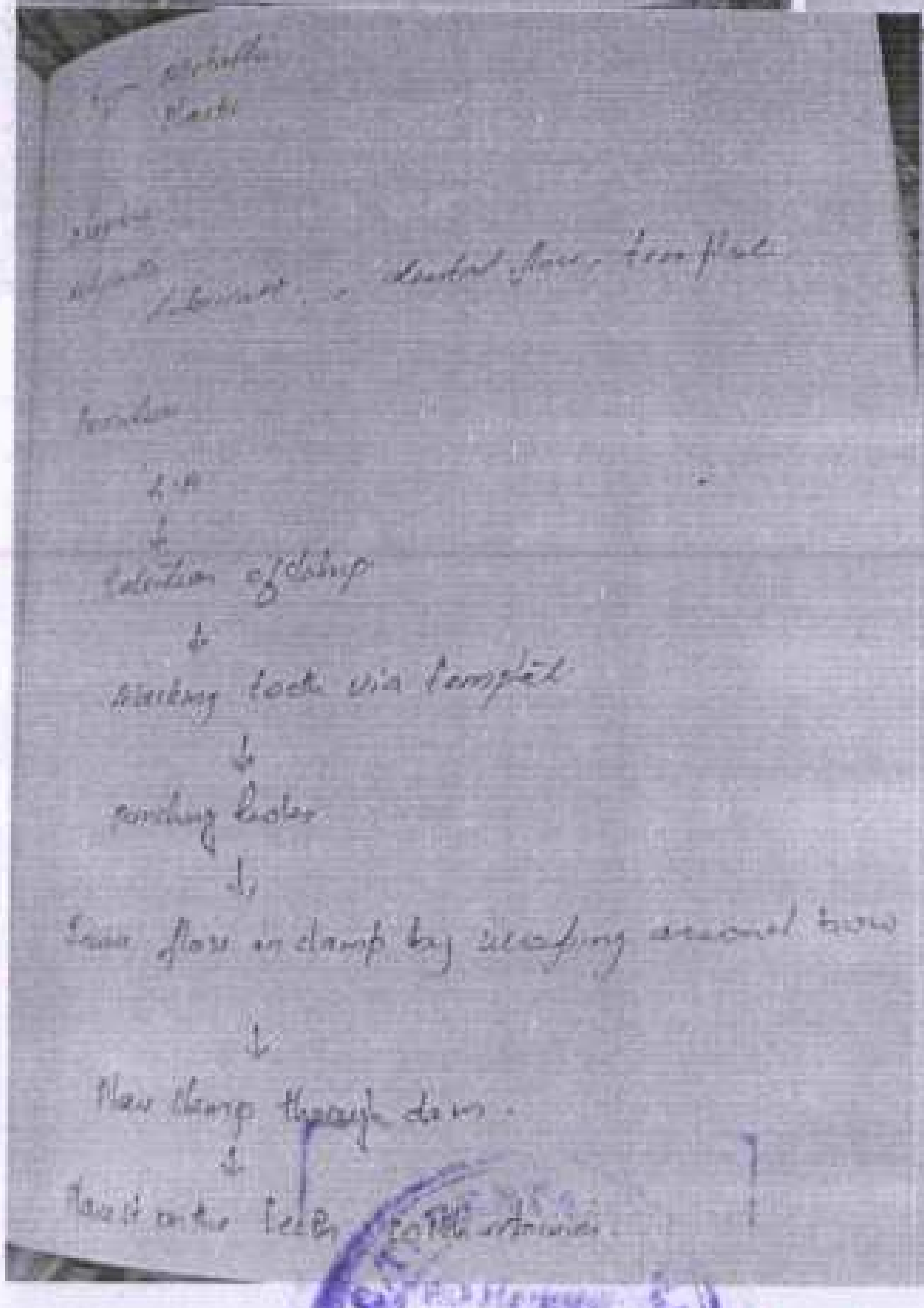


Rubber dam
Isolation technique

Advantages
Dry clean field.
Access with visibility
Moisture control
Aseptic Environment
Prevent tissue damage.
Prevent aspiration of small instruments.
Minimization of mouth breathing

Disadvantages
Poorly retentive clamps.
latex allergy

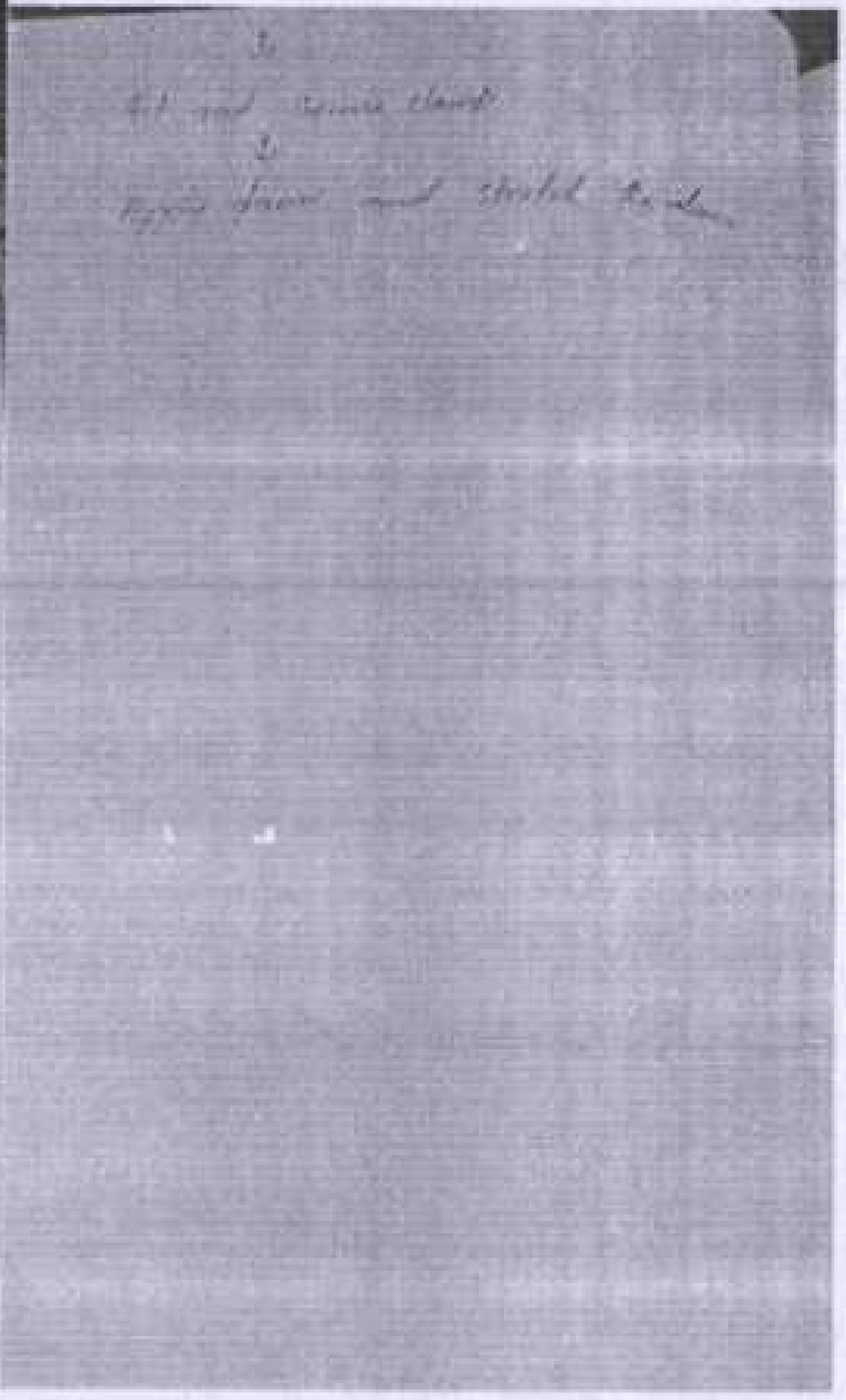
Contraindication.
allergy to latex.
respiratory problem.



[illegible]
Mask

Supplies
adjuncts
lubricant, dental floss, template

Procedure
LA
↓
Selection of clamp
↓
Marking teeth via template
↓
punching holes
↓
Secure floss in clamp by wrapping around bow
↓
Place clamp through dam.
↓
Place it on the teeth [illegible]



↓
Fit and secure clamp
↓
Apply frame and stretch the dam.

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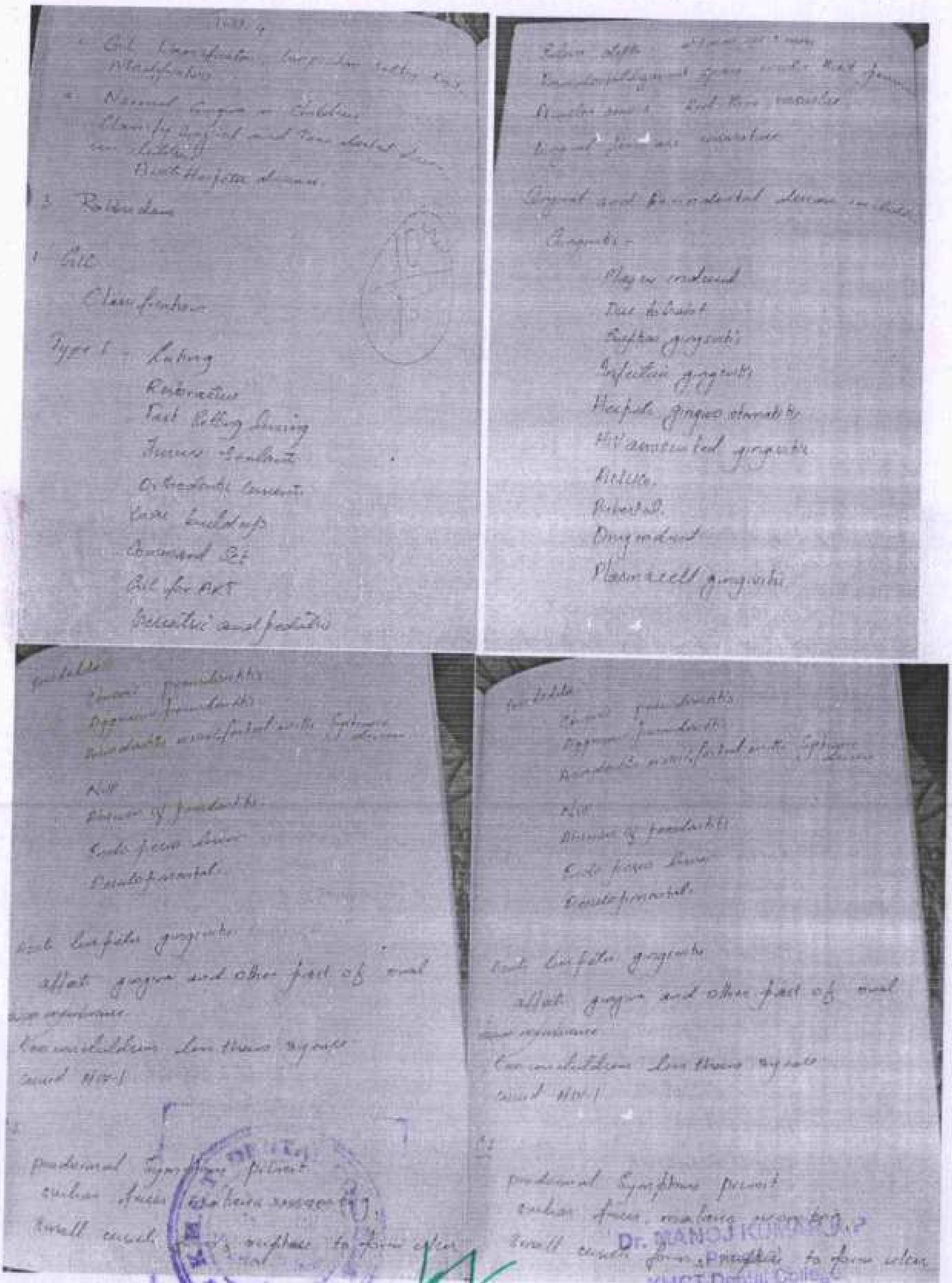
Periodical Assessments with Class Tests and Evaluation: Regular class tests and assessments are conducted to track progress, identify weak areas, and provide timely feedback. This helps students understand their strengths and weaknesses.



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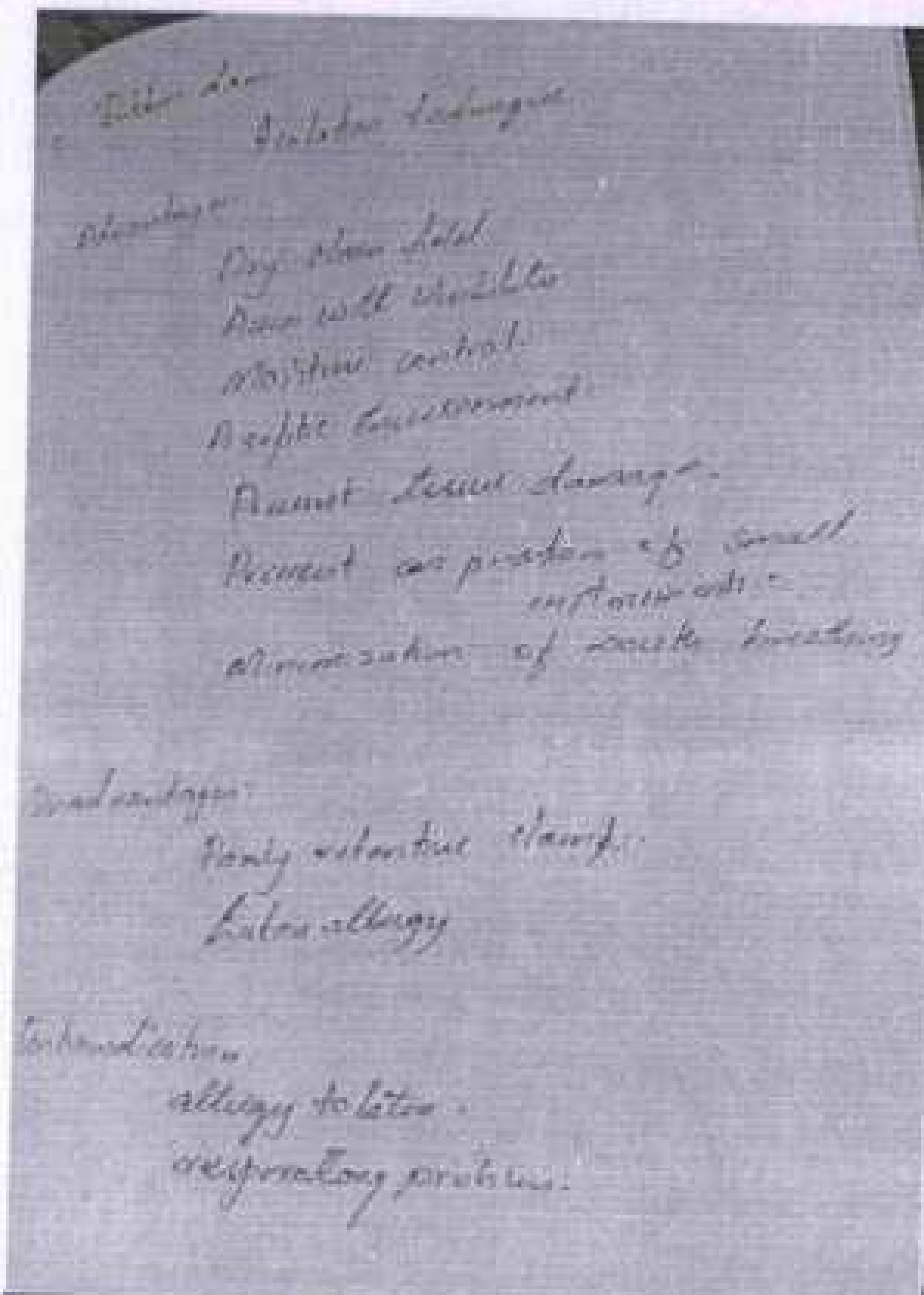
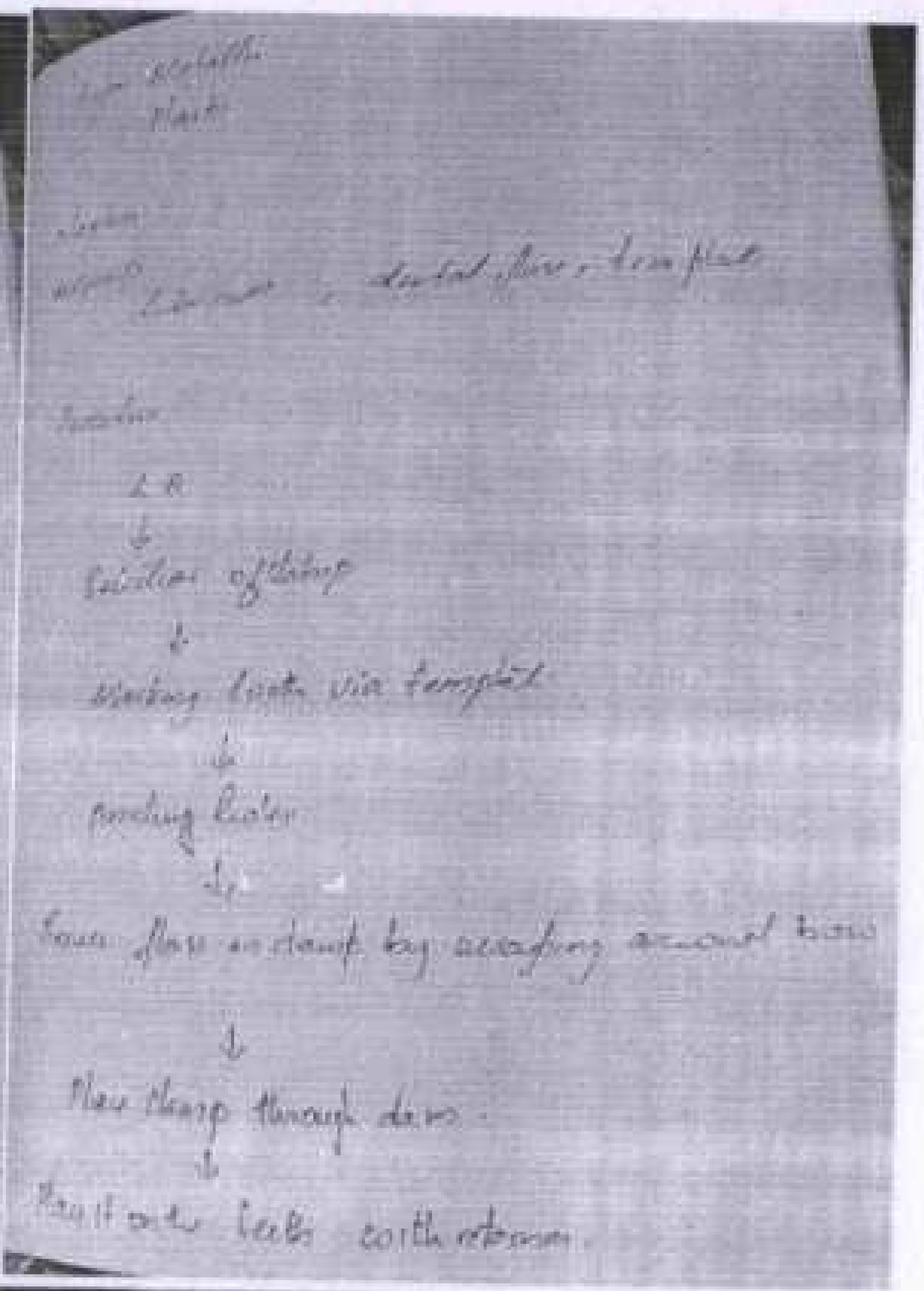


Rubber dam
Isolation technique

Advantages:
Dry clean field
Access with visibility
Moisture control
Aseptic Environment
Prevent tissue damage.
Prevent aspiration of small instruments.
Minimization of [illegible] breathing

Disadvantages:
Poorly retentive clamp.
Latex allergy

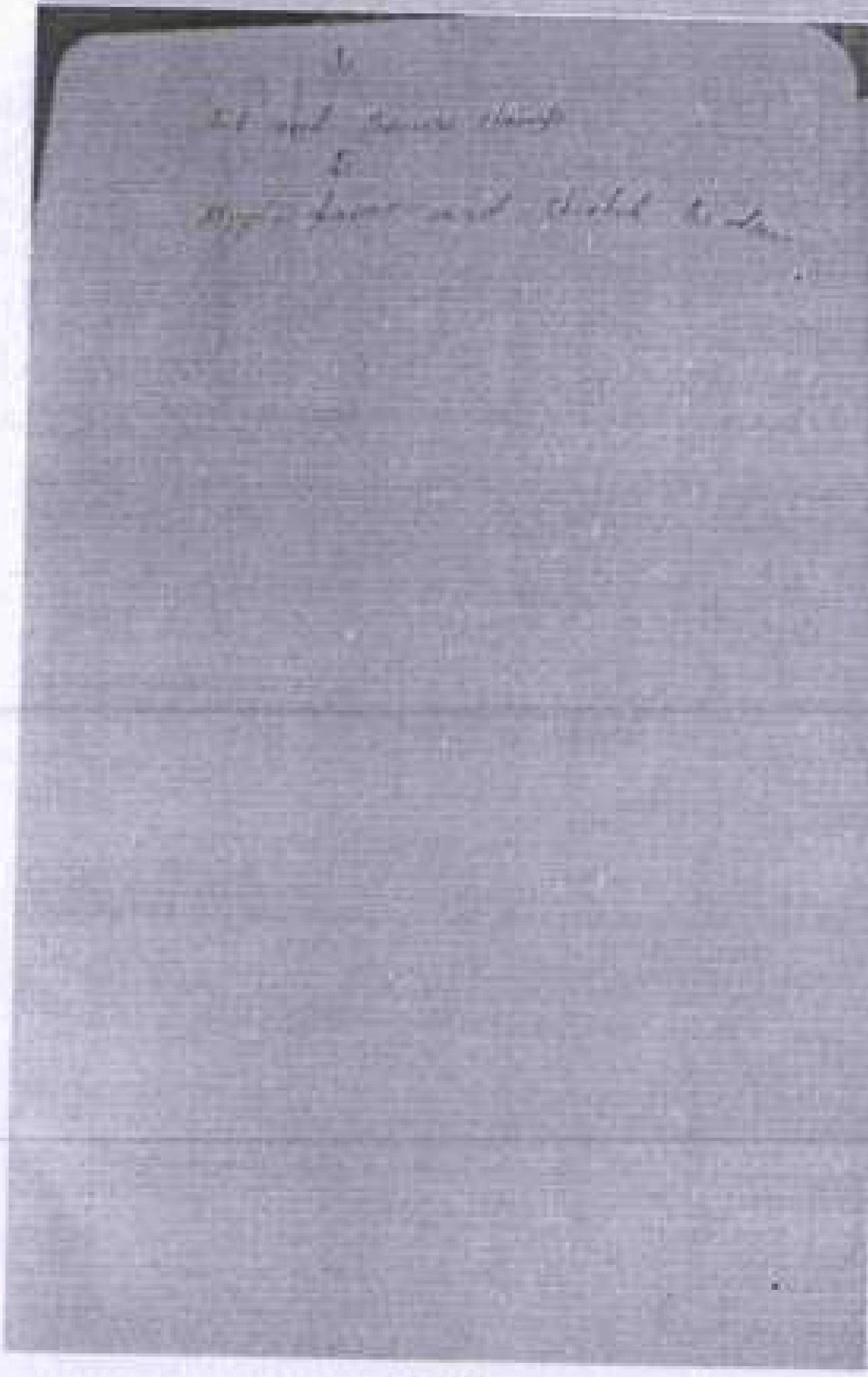
Contraindications
allergy to latex.
respiratory problems.



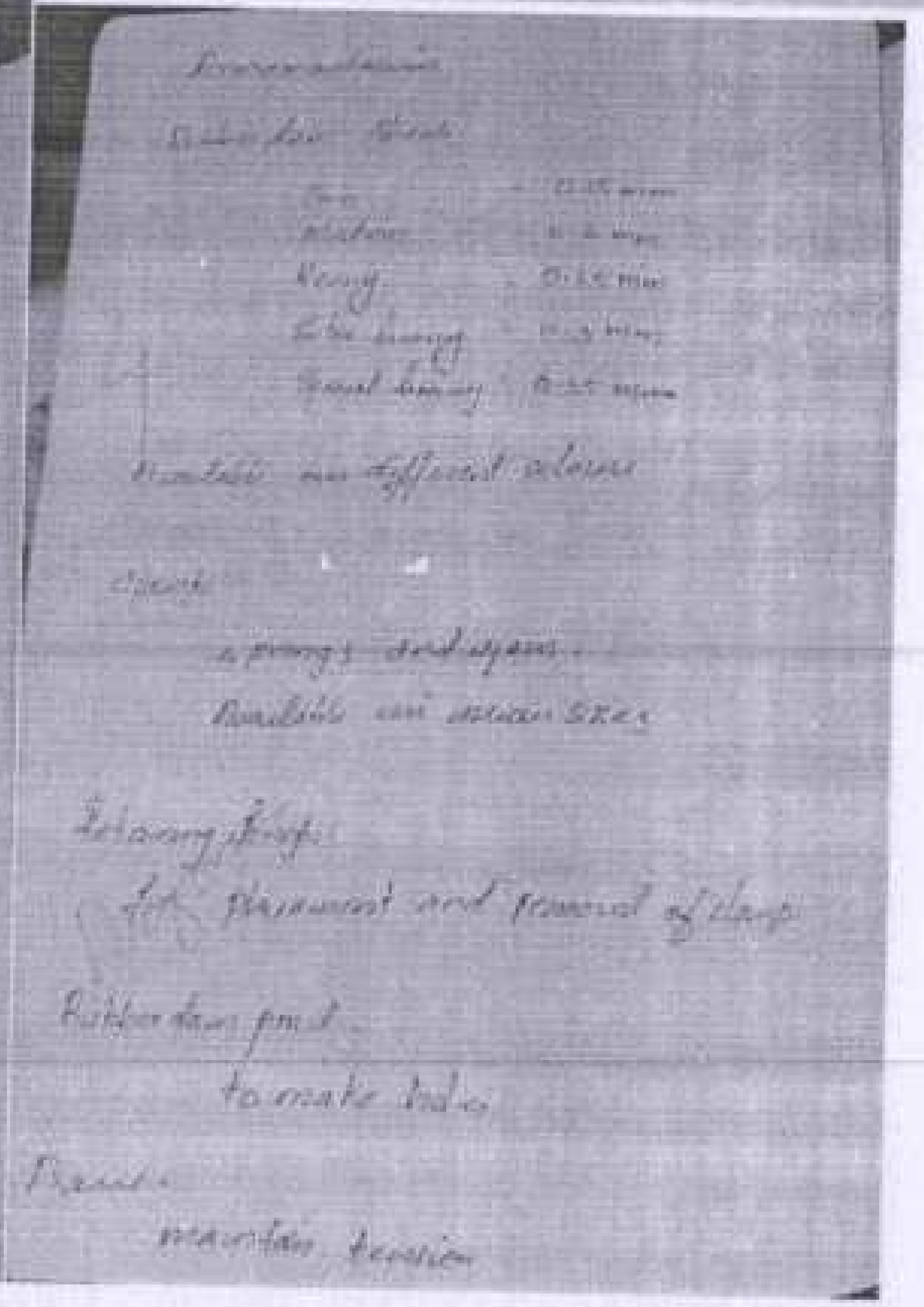
[illegible]
Plate

Items
[illegible] [illegible], dental floss, template

Procedure
LA
↓
Selection of clamp
↓
Marking teeth via template
↓
Punching holes
↓
Secure floss on clamp by wrapping around bow
↓
Place clamp through dam
↓
Place it on the teeth with [illegible]



↓
[illegible] and [illegible] clamp
↓
Apply frame and [illegible] the dam.



Armamentarium
Rubber dam sheet
Thin 0.15 mm
Medium 0.2 mm
Heavy 0.25 mm
Extra heavy 0.3 mm
Special heavy 0.35 mm
Available in different colours

Clamp
[illegible] prongs and jaws.
Available in various sizes

Retaining forceps
for placement and removal of clamp

Rubber dam punch
to make holes

Frame
maintain tension

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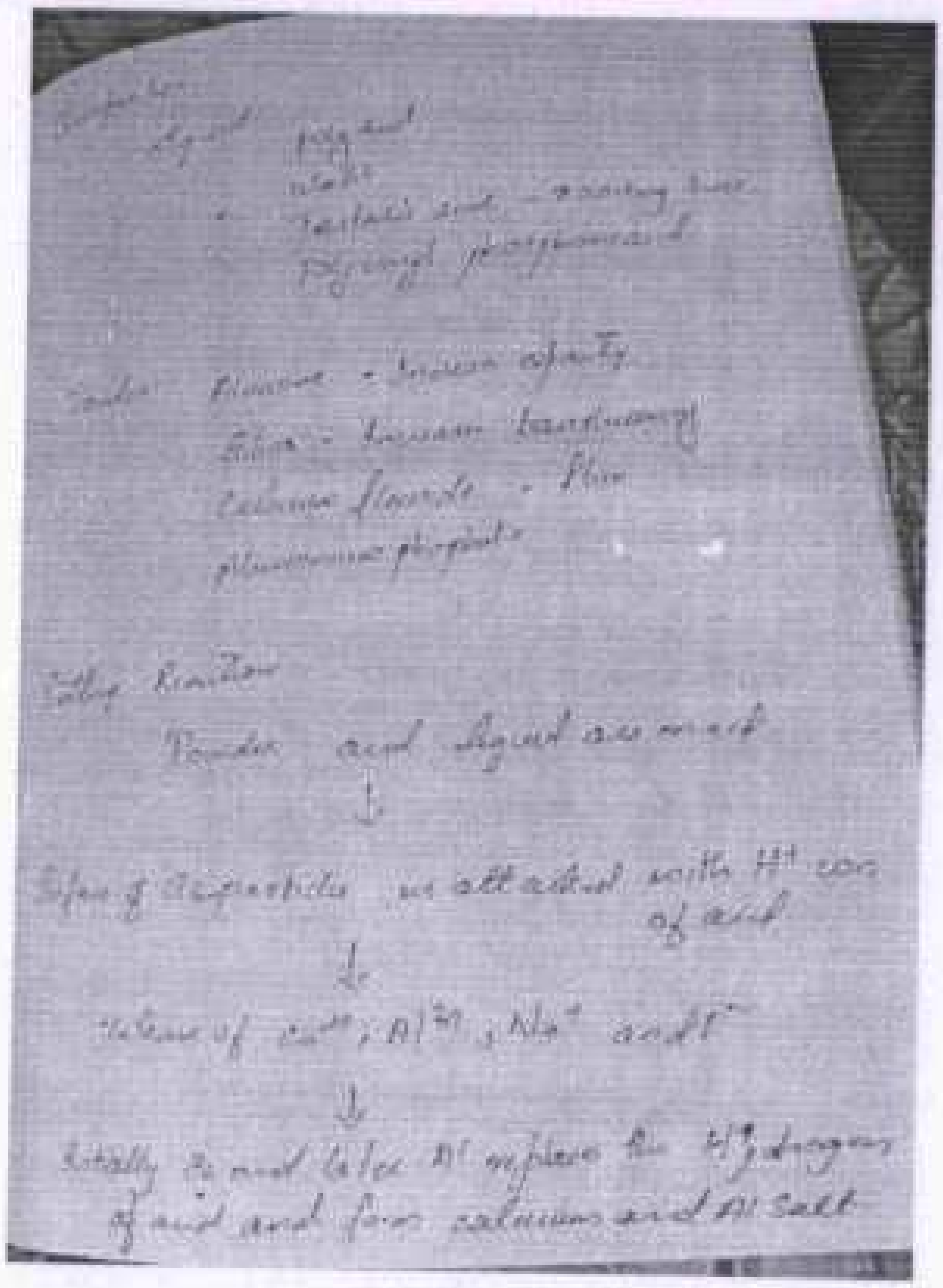

Composition
Liquid – Polyacid
water
– Tartaric acid – setting time
Polyvinyl phosphonic acid

Powder: Alumina – increases opacity
Silica – increases translucency
Calcium fluoride – flux
aluminium phosphate

Setting Reaction
Powder and liquid are mixed
↓
Surface of glass particles are attacked with H+ ion of acid
↓
Release of Ca^{++}, Al^{3+}, Na^{+} and F^{-}
↓
Initially Ca and later Al replace the Hydrogen of acid and form calcium and Al salt

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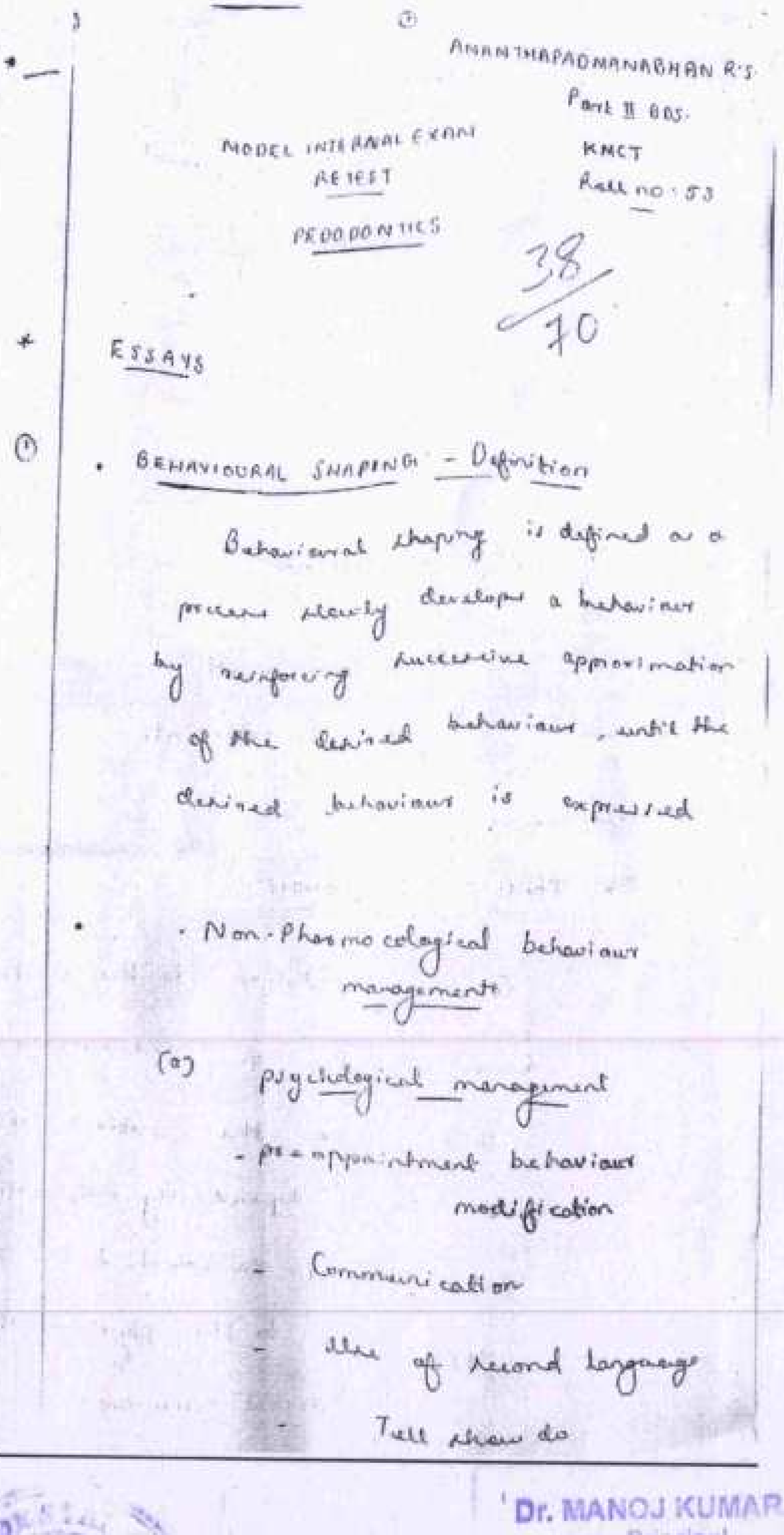

①

ANANTHAPADMANABHAN R.S.
Part II BDS.
KMCT
Roll no: 53

MODEL INTERNAL EXAM
RETEST

PEDODONTICS

38/70

ESSAYS

① • BEHAVIOURAL SHAPING - Definition

Behavioural shaping is defined as a process slowly develops a behaviour by reinforcing successive approximation of the desired behaviour, until the desired behaviour is expressed

• Non-Pharmacological behaviour managements

(a) Psychological management

- pre-appointment behaviour modification
- Communication
- Use of second language
- Tell show do

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①

Ananthapadmanabhan R.S
Part II BDS
KMCT
Roll no: 54

Model Internal Examination

Pedodontics

20/100

A ESSAYS

② Stainless Steel Crowns

- Stainless steel crowns are the cost cast metal restorations which are primarily used for capping the crowns of large carious lesion affected tooth.

1

- These metallic restorations favours adequate compressive strength and wear strength against heavier masticatory forces.
- These metallic restoration are favoured most, since they are more resistant to tarnish and corrosion and highly stable restorations.

Indications

- It indicated in large carious lesions.

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Encouraging Reading Books with Simple Language: To improve comprehension and understanding, students are encouraged to read supplementary materials or simplified textbooks that explain complex topics in simpler language.

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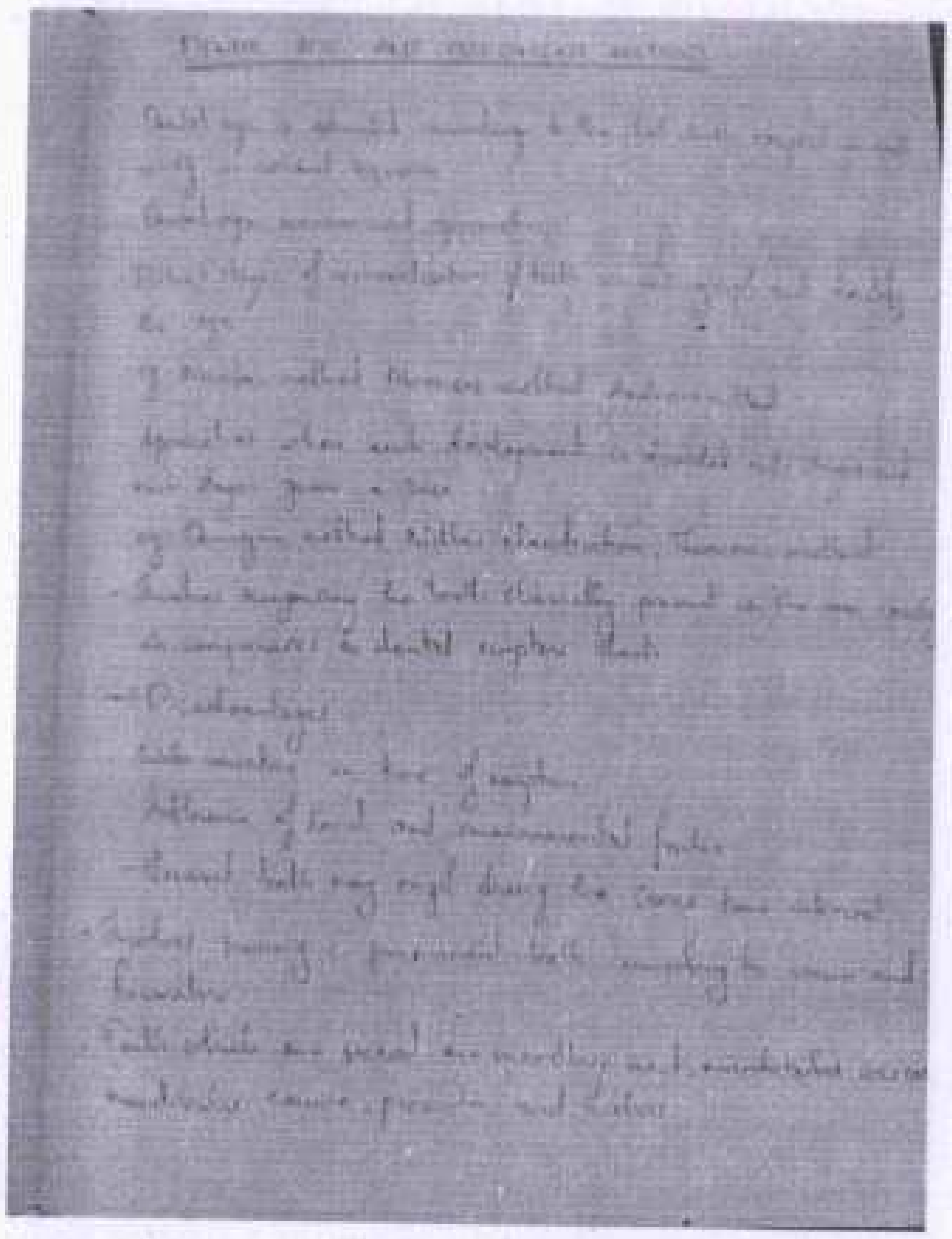
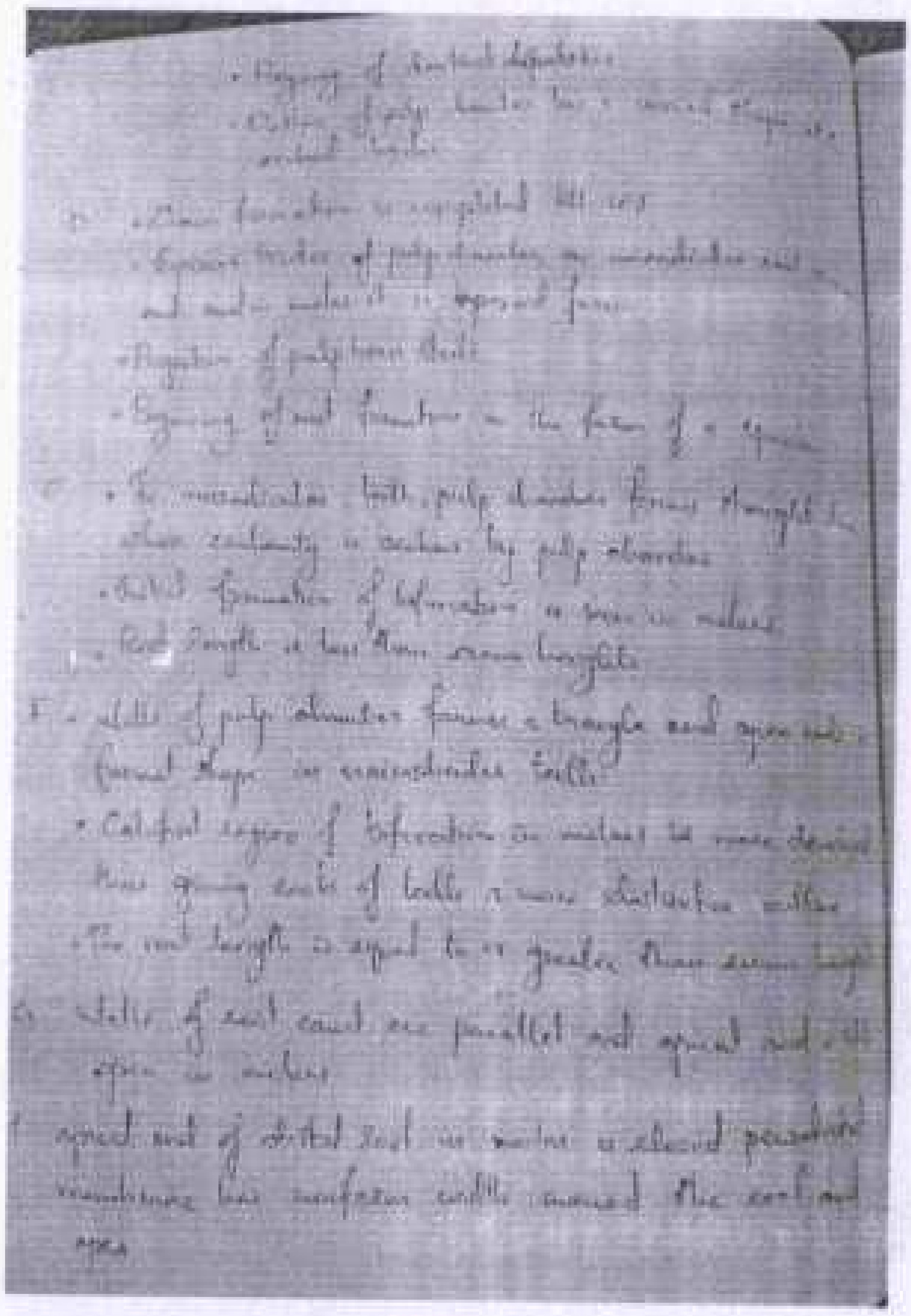
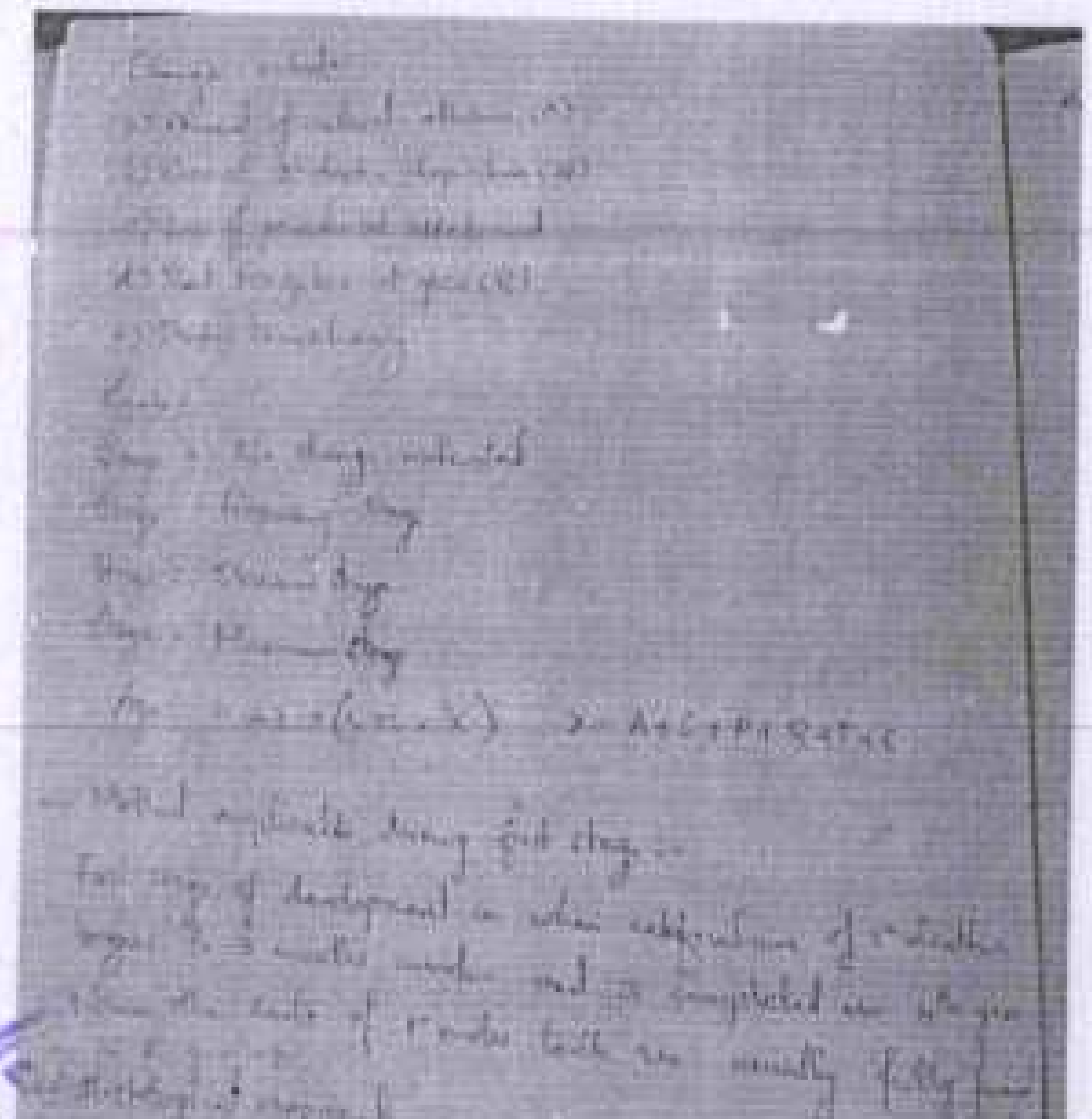
- **Provision of Special Notes**: Specialized study materials, including simplified notes and summaries, are provided to slow performers, aiding in better understanding and retention of crucial concepts.







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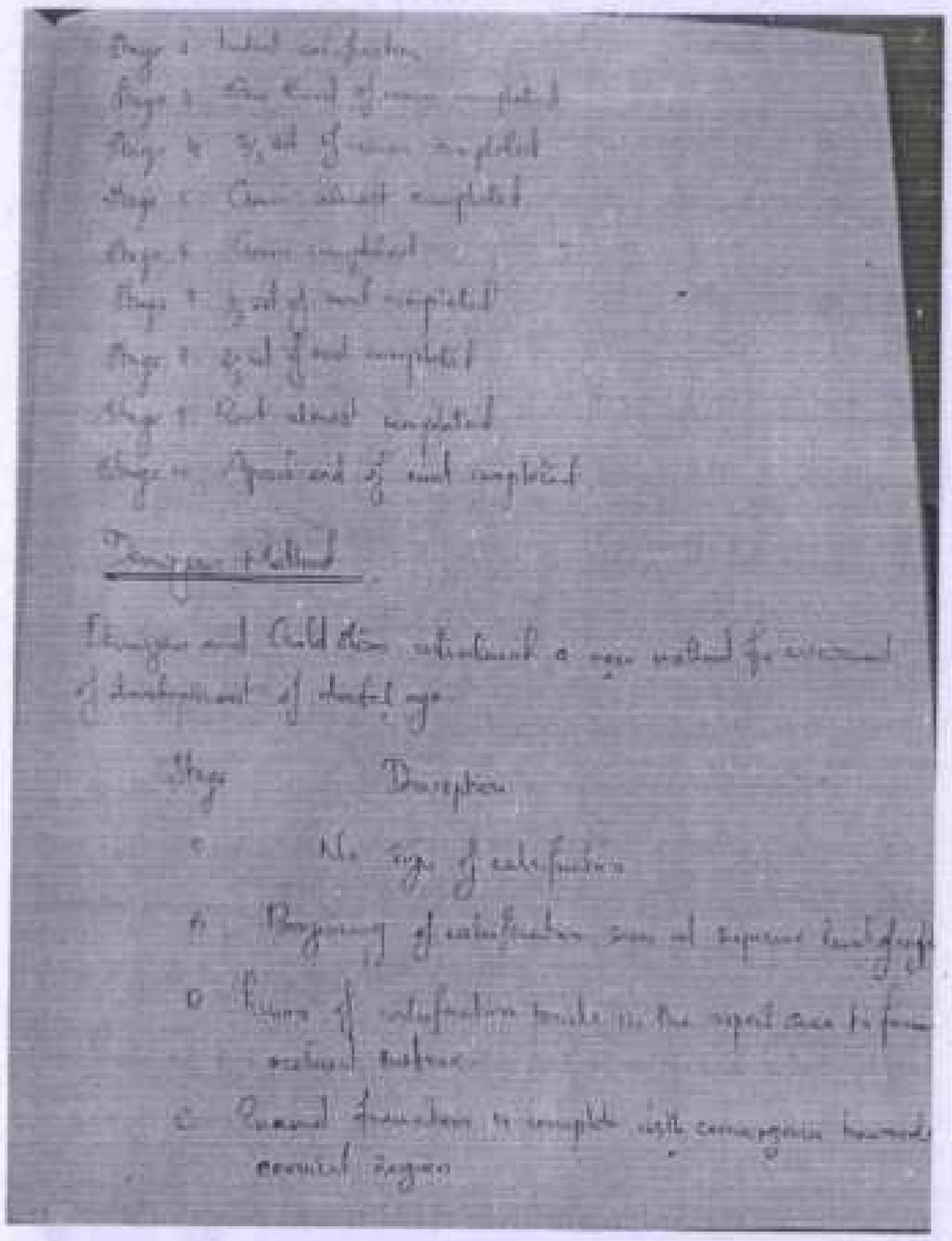
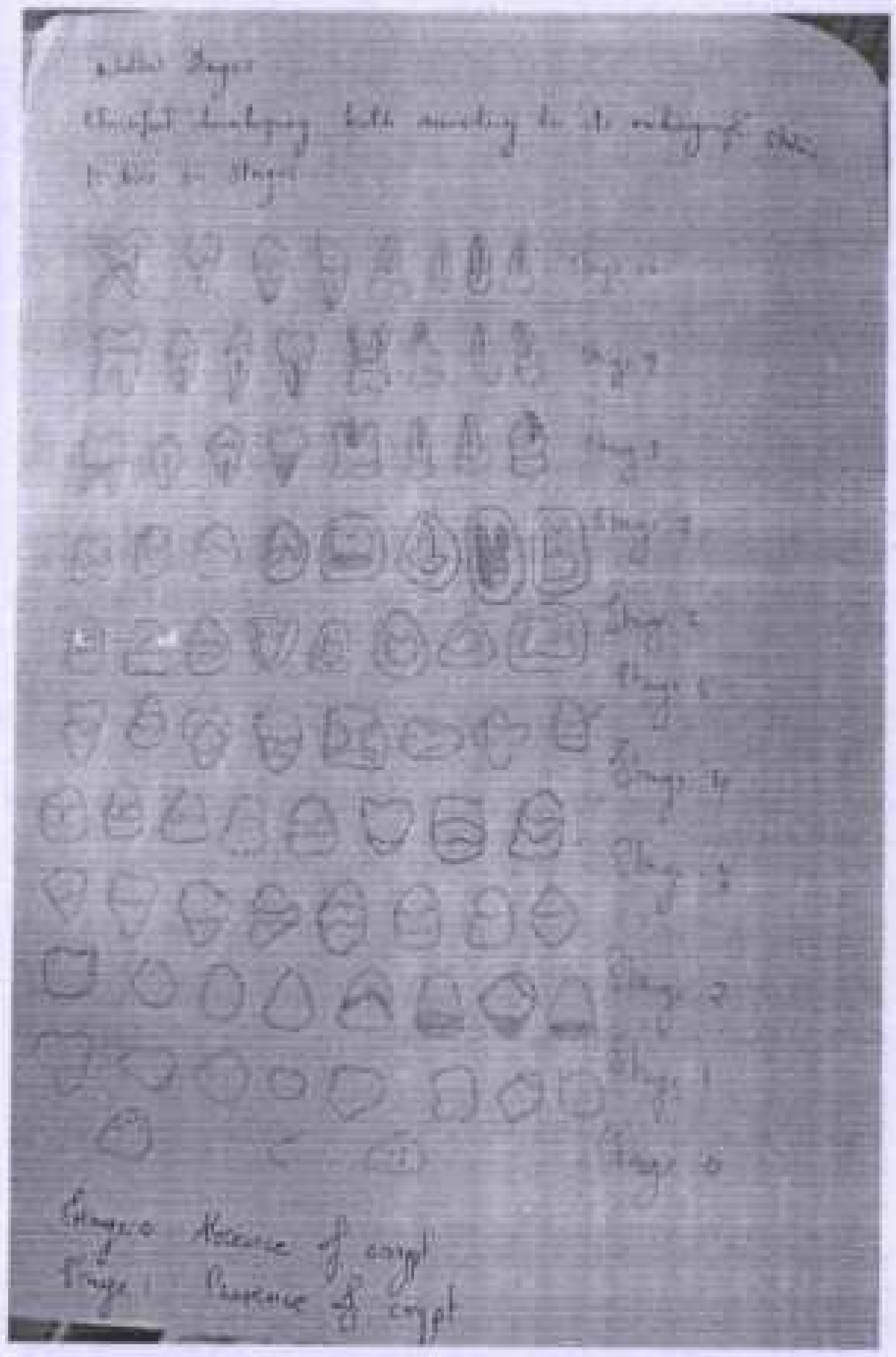


Stage 2 Initial calcification
Stage 3 One third of crown completed
Stage 4 2/3 of crown completed
Stage 5 Crown almost completed
Stage 6 Crown completed
Stage 7 1/3 of root completed
Stage 8 2/3 of root completed
Stage 9 Root almost completed
Stage 10 Apical end of root completed

Demirjian Method

Demirjian and Goldstein introduced a new method for assessment of development of dental age

Stage	Description
0	No sign of calcification
A	Beginning of calcification seen at superior level of cryp
B	Fusion of calcification points in the superior area to form occlusal surface
C	Enamel formation is complete with convergence towards cervical region

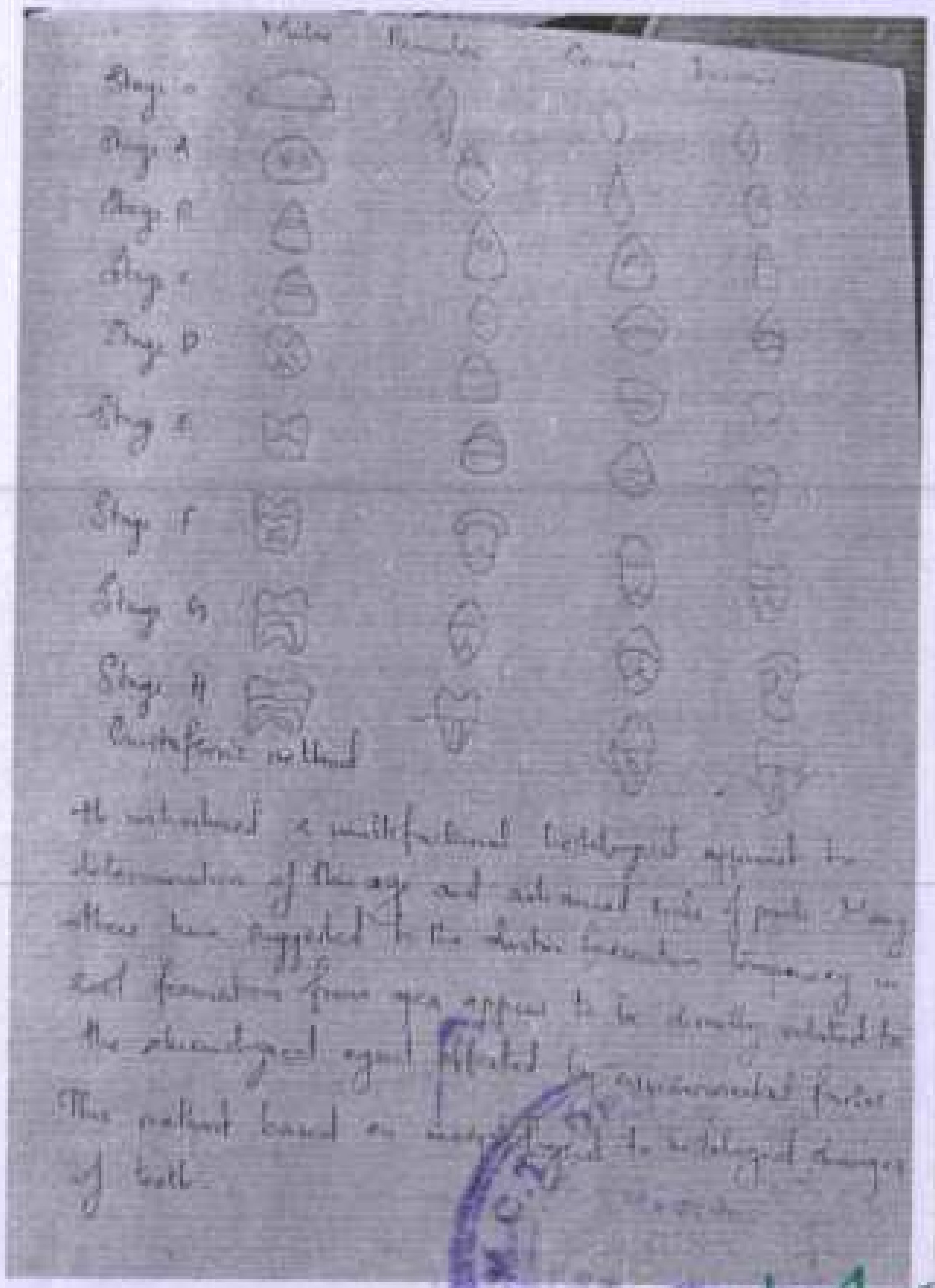


Nolla Stages

Classified developing teeth according to its radiographic [illegible] to 10 stages

Stage 10
Stage 9
Stage 8
Stage 7
Stage 6
Stage 5
Stage 4
Stage 3
Stage 2
Stage 1
Stage 0

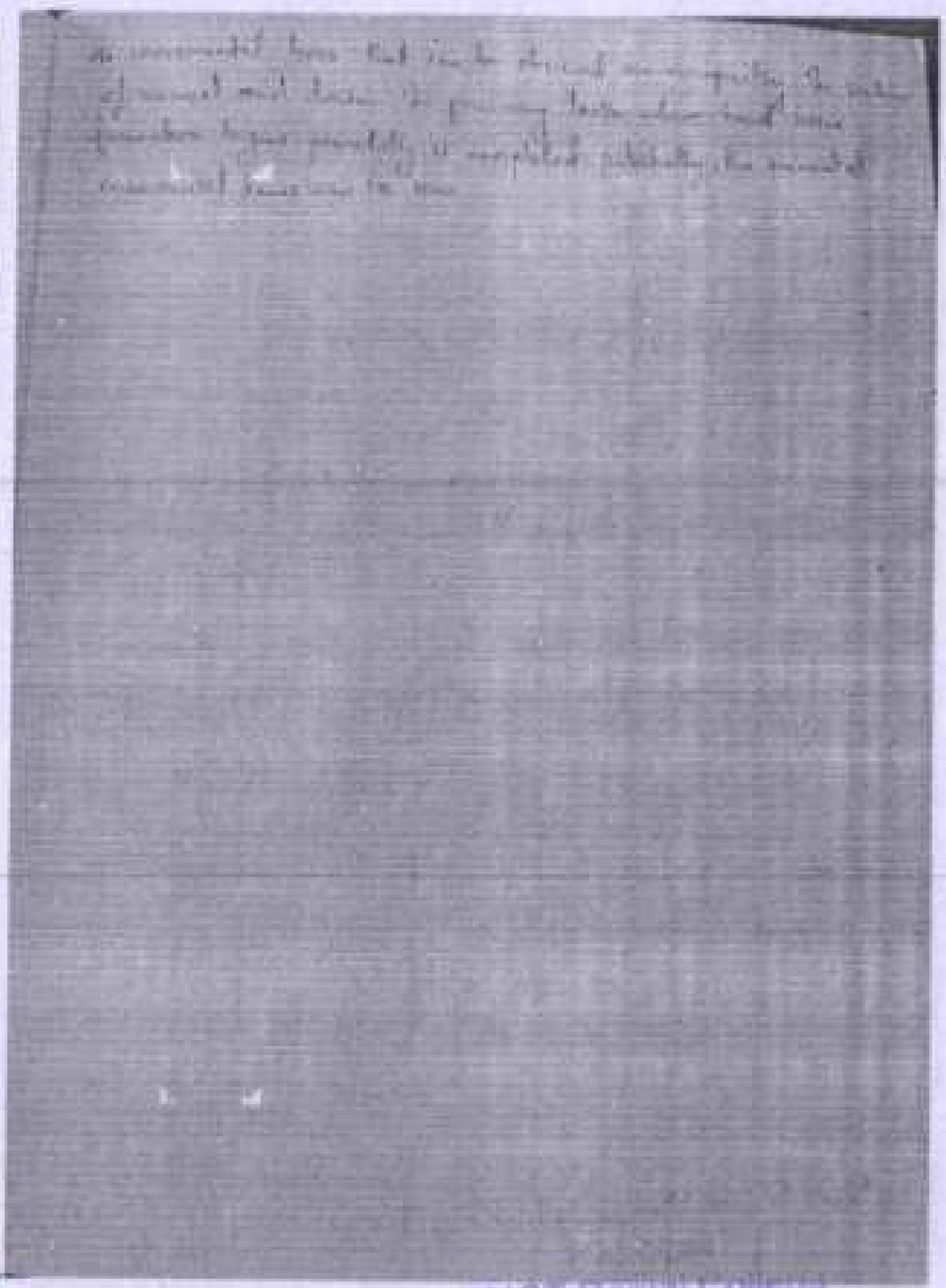
Stage 0 Absence of crypt
Stage 1 Presence of crypt



Molar
Premolar
Canine
Incisor
Stage 0
Stage A
Stage B
Stage C
Stage D
Stage E
Stage F
Stage G
Stage H

Gustafson's method

He introduced a multifactorial histological approach to determination of the age and advanced [illegible] of [illegible]. Many others have suggested that the dentin formation frequency in root formation from ages appear to be directly related to the chronological age affected by environmental factor. This method based on morphological and histological changes of teeth.



the environmental factor that can be physical [illegible] of enamel and dentin [illegible] formation begins [illegible] completed [illegible]

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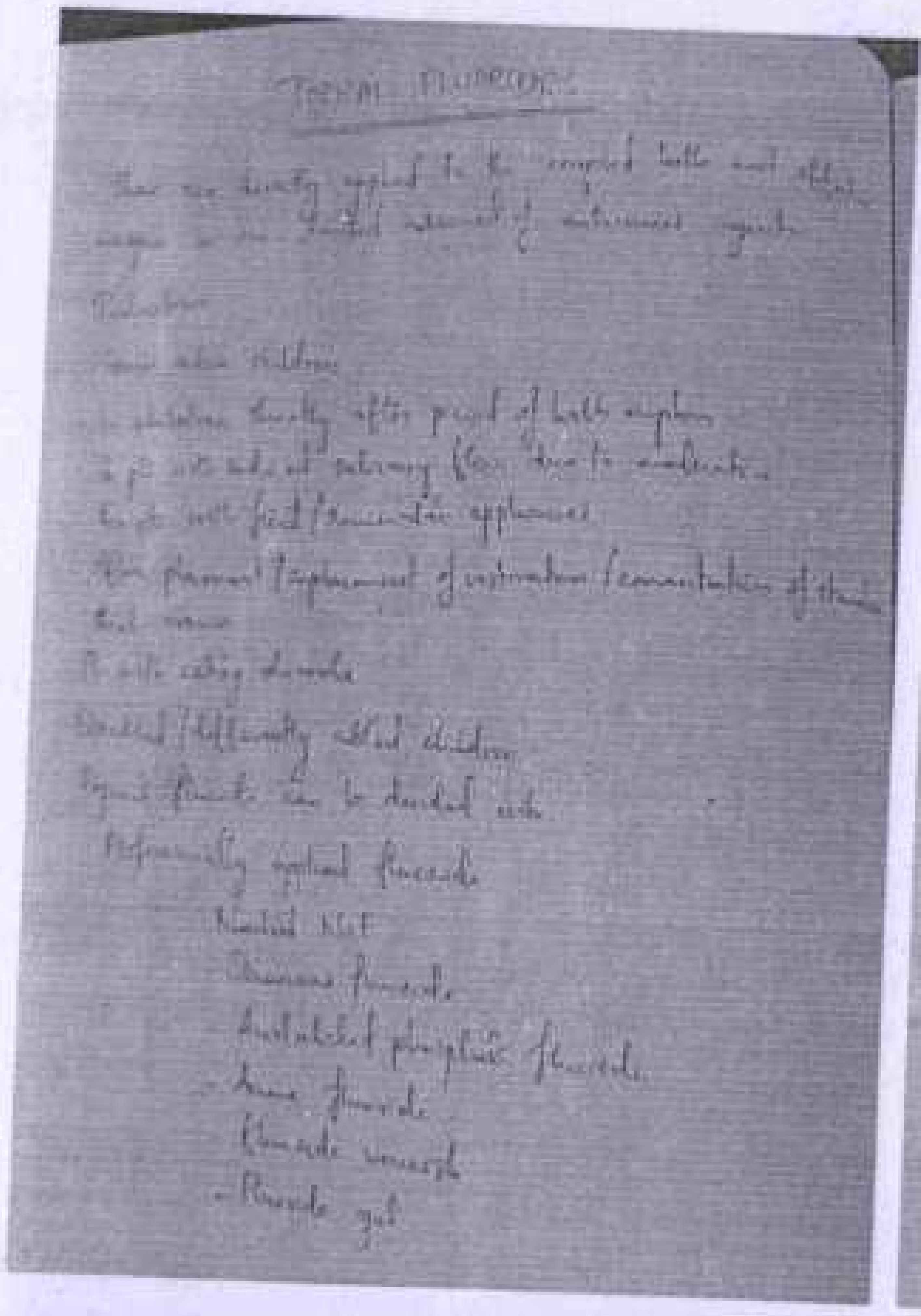

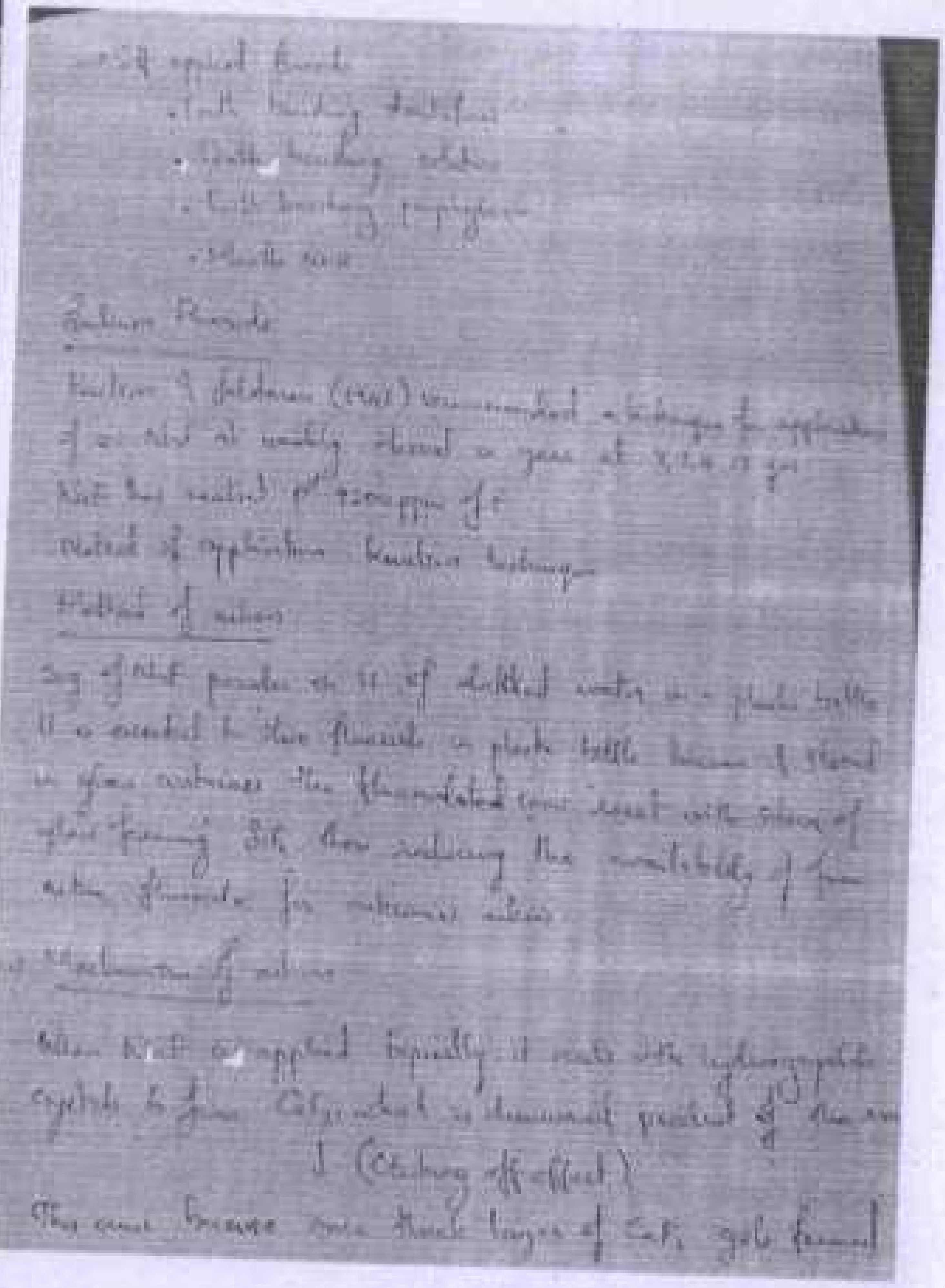

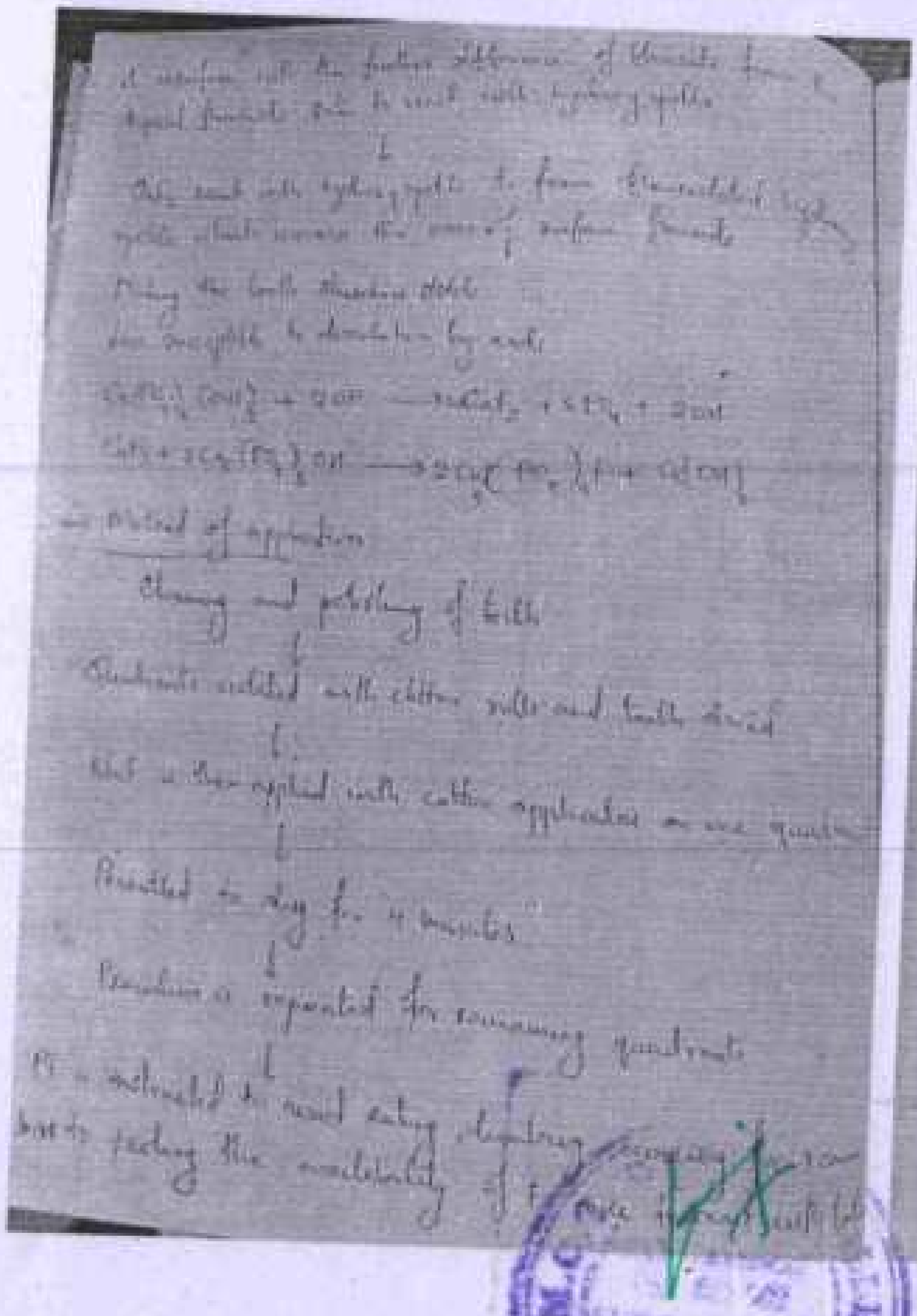

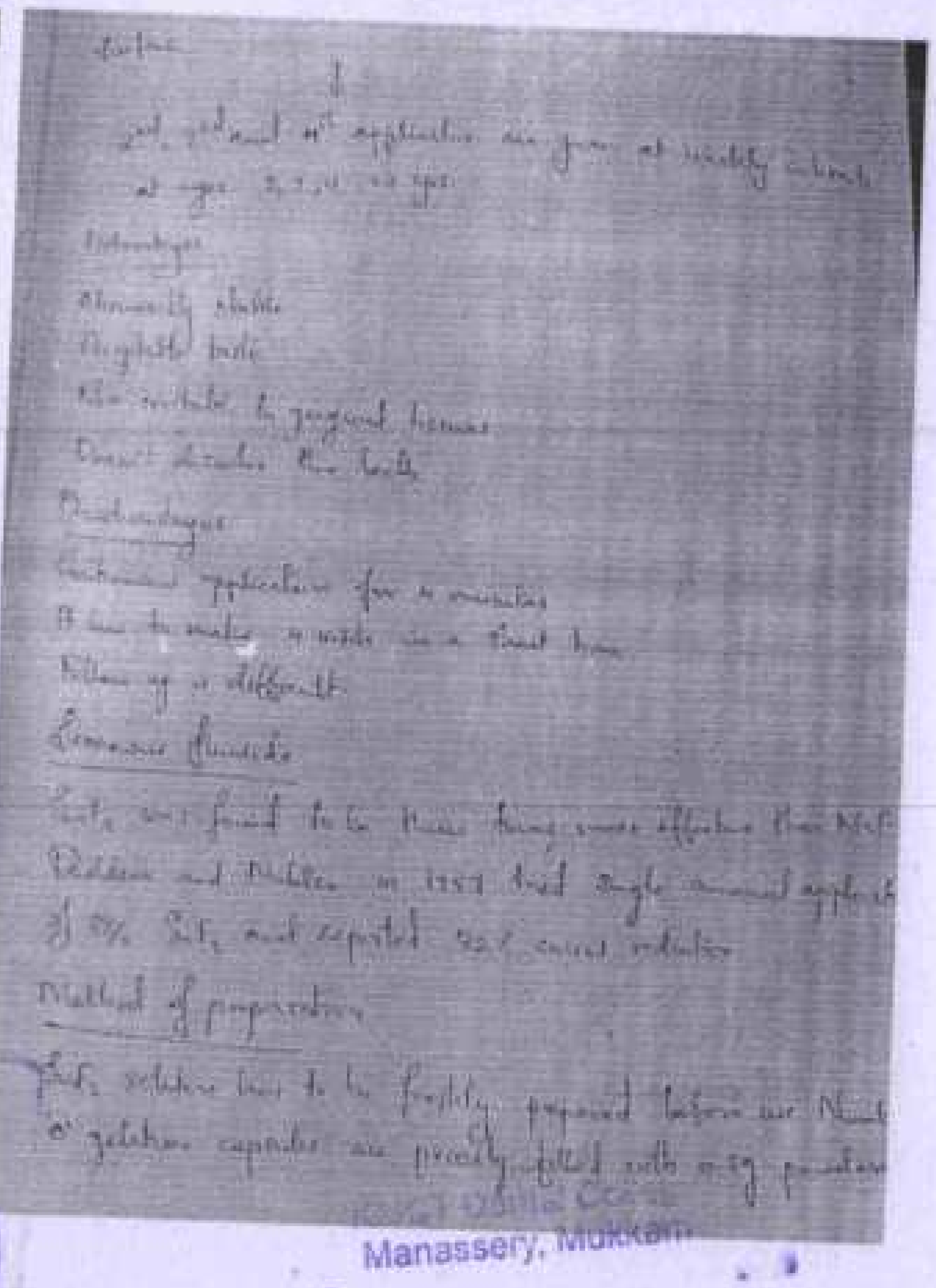

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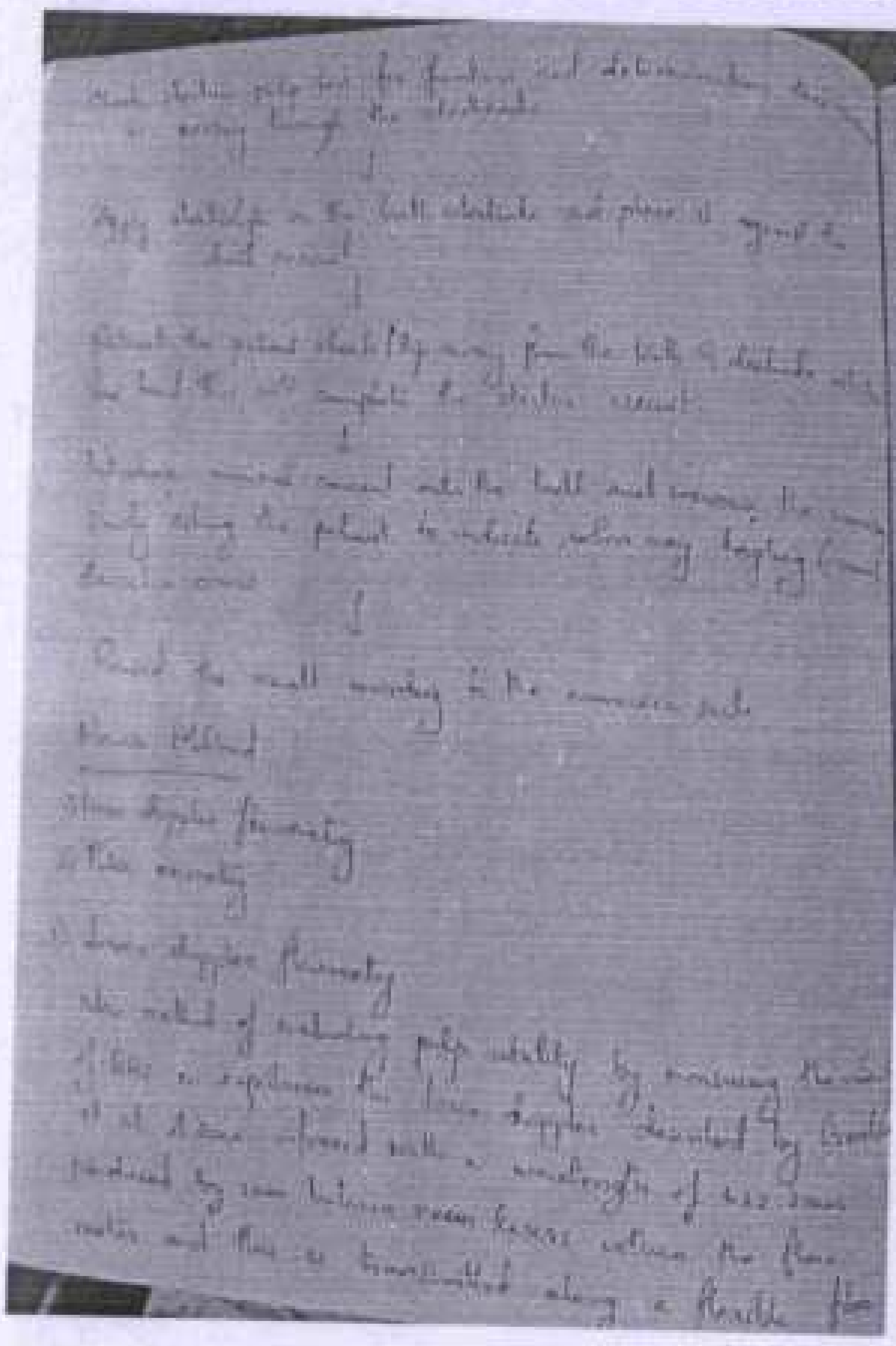


Mark electric pulp test for [illegible] and [illegible] the [illegible] through the electrode

↓

Apply electrolyte in the tooth electrode and place it against the tooth surface

↓

Instruct the patient that [illegible] away from the tooth & electrode [illegible] will complete the electric circuit

↓

Increase current [illegible] into the tooth and increase the current slowly asking the patient to indicate when any tingling (sensation) occurs

↓

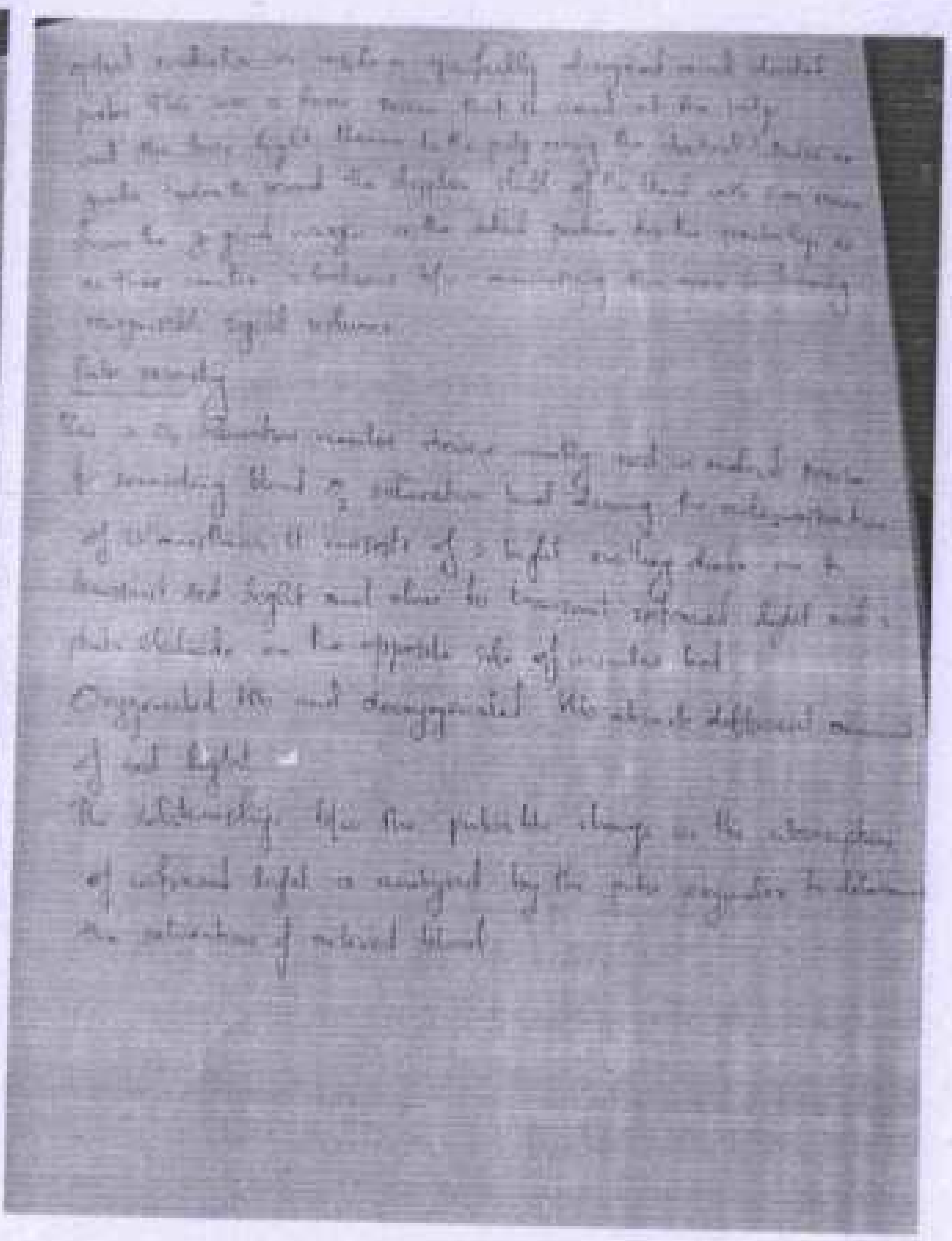
Record the result according to the numerical scale

Newer Method

1) Laser doppler flowmetry
2) Pulse oximetry

1) Laser doppler flowmetry

The method of evaluating pulp vitality by measuring the [illegible] of blood [illegible] the laser doppler described by [illegible] It is a [illegible] infrared with a wavelength of 632.8 nano meter and this is transmitted along a flexible fibre



optical [illegible] specifically designed [illegible] dental probe. This [illegible] at the pulp [illegible] light [illegible] to the pulp [illegible] doppler shift [illegible] frequency [illegible] reproducible [illegible] volume.

Pulse oximetry

This is an oxygen saturation monitor device mostly used in medical practice for recording blood oxygen saturation level during the [illegible] of anaesthesia. It consists of 2 light emitting diodes one to transmit red light and other to transmit infrared light and a photo detector on the opposite side of vascular bed.

Oxygenated Hb and deoxygenated Hb absorb different amount of red light.

The relationship b/w the pulsatile change in the absorption of infrared light is analysed by the pulse oximeter to determine the saturation of arterial blood.

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- **Customized Learning Plans**: Tailored learning plans are designed to cater to specific learning styles, pace, and requirements, ensuring a more personalized learning experience.

DEPARTMENT OF PEDIATRIC AND PREVENTIVE DENTISTRY

LESSON PLAN	
LESSON TITLE	UNDERSTANDING SPACE MAINTAINERS
TEACHER	DR.ANJU.R.V
BATCH	FOURTH YEAR PART 2
DATE	11/8/2023 AND 18/8/2023

Duration: 2 hours

Objectives:

By the end of this lesson, students will be able to:

- Define space maintainers and explain their importance.
- Identify different types of space maintainers.
- Understand the indications and contraindications for space maintainer placement.
- Demonstrate the proper procedure for fabrication and placing a space maintainer.

Materials:

- Presentation slides or whiteboard and markers
- Models of teeth and jaws
- Space maintainer models or examples
- Clinical instruments (mirror, probe, tweezers) and various pliers and spot welders and soldering unit
- Sterile gloves and masks (for hands-on practice)

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Lesson Plan:

Introduction (10 minutes):

Begin with a brief discussion of the importance of primary teeth in the dental arch.

Explain how premature loss of primary teeth can lead to malocclusion and the need f space maintainers.

Types of Space Maintainers (15 minutes):

Present different types of space maintainers, including removable and fixed applianc

Discuss the advantages and disadvantages of each type.

Use models or visual aids to illustrate the devices.

Indications and Contraindications (10 minutes):

Explain the situations where space maintainers are indicated, such as early primary t loss.

Discuss contraindications, such as certain oral health conditions.

Emphasize the importance of a thorough patient assessment.

Procedure for Fabrication and Placing Space Maintainers (50 minutes):

Provide a step-by-step guide on how to place a fixed space maintainer.

Use models or visual aids to demonstrate each step.

Highlight infection control and sterilization procedures.

Discuss any potential complications and how to address them.

Case Studies and Discussion (15 minutes):

Present case studies of patients who would benefit from space maintainers.

Engage students in a discussion about treatment planning and decision-making.

Encourage critical thinking and problem-solving.

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Q&A and Review (10 minutes):

Open the floor for questions and clarifications.

Review key concepts, including indications, contraindications, and placement procedures.

Conclusion (5 minutes):

Summarize the importance of space maintainers in preventing malocclusion.

Encourage students to continue practicing and learning about pediatric dentistry.

Assessment:

Assessment can be done through a short quiz, a test paper of space maintainer placement, or a group presentation on a relevant case study.

Homework/Assignment:

Assign students to research a recent case study involving space maintainers for the next class.

REFLECTIONS: FEEDBACK FROM STUDENTS AT THE END OF THE SECTION.

This lesson plan should equip dental students with the knowledge and practical skills needed to understand and place space maintainers effectively.

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DEPARTMENT OF CONSERVATIVE DENTISTRY AND ENDODONTICS

DETAILS OF SPECIAL PROGRAMS FOR SLOW PERFORMERS

Continuous Monitoring and Individual Attention by Mentors:

This approach ensures that students receive the personalized guidance they need to overcome academic challenges,improve their performance, and achieve their full potential.

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Special Classes with Subject Experts:

Slow performers attend additional classes conducted by subject experts. These classes focus on offering in depth, expert -level guidance to students, particularly slow learners or those struggling to grasp key concepts in certain subjects.

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Encouragement of Collaborative Study with Advanced Learners:

Collaborative study between slow learners and advanced learners can be an effective strategy to foster academic growth ,build confidence, and promote peer learning.

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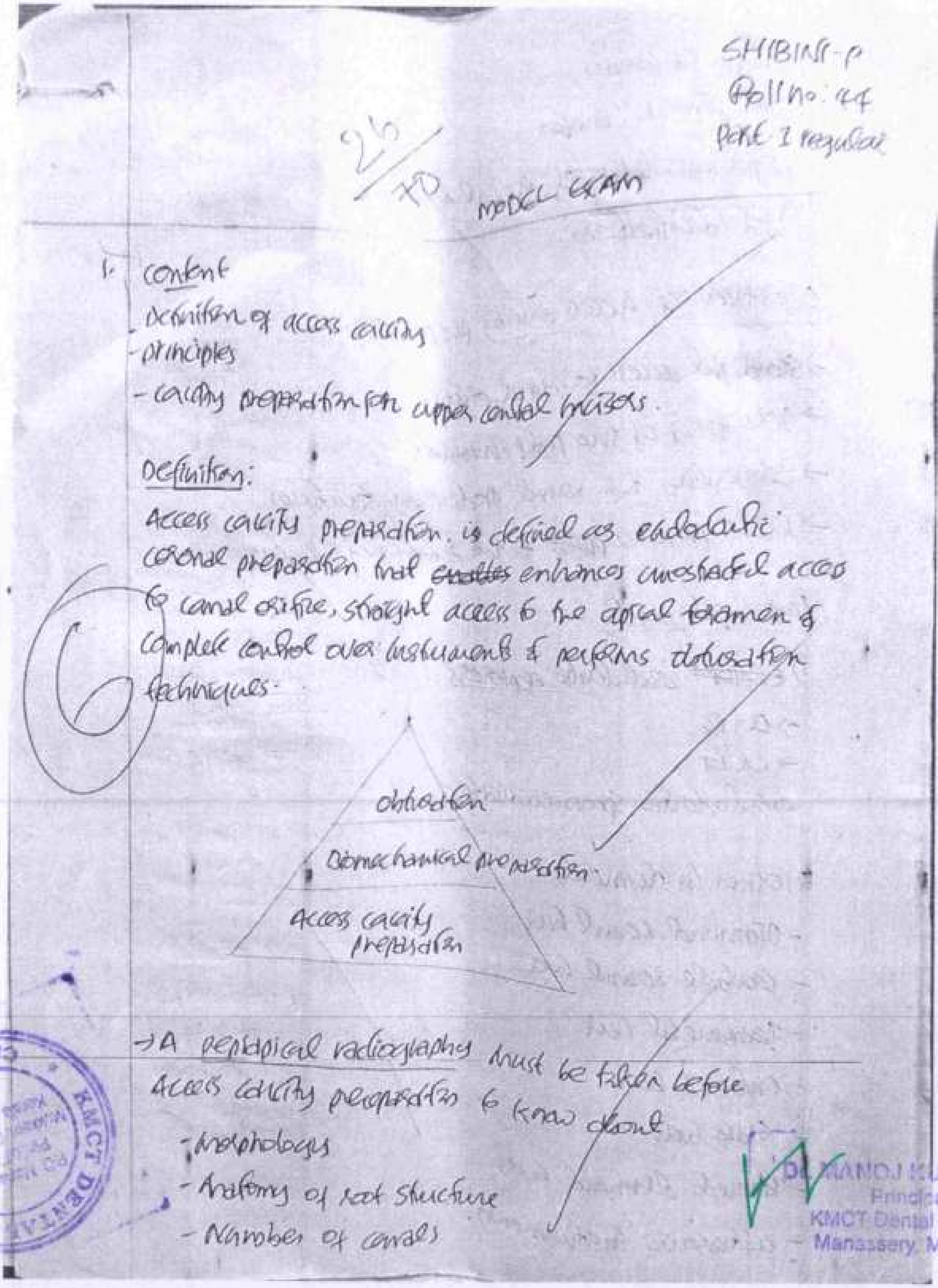

SHIBIN P
Roll no: 44
Part 1 regular

25/70

MODEL EXAM

1. Content

- Definition of access cavity
- principles
- cavity preparation for upper central incisors.

Definition:

Access cavity preparation is defined as endodontic coronal preparation that ~~enables~~ enhances unobstructed access to canal orifice, straight access to the apical foramen & complete control over instruments & performs obturation techniques.

6

obturation

biomechanical preparation

access cavity preparation

→ A periapical radiography must be taken before access cavity preparation to know about

- morphology
- Anatomy of root structure
- Number of canals

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SHIBINI-P
Rollno: 42
Regno:190020913

CONSERVATIVE &
ENDODONTICS

22/5/24
wednesday

MODEL EXAM ~~REFF~~ RETEST

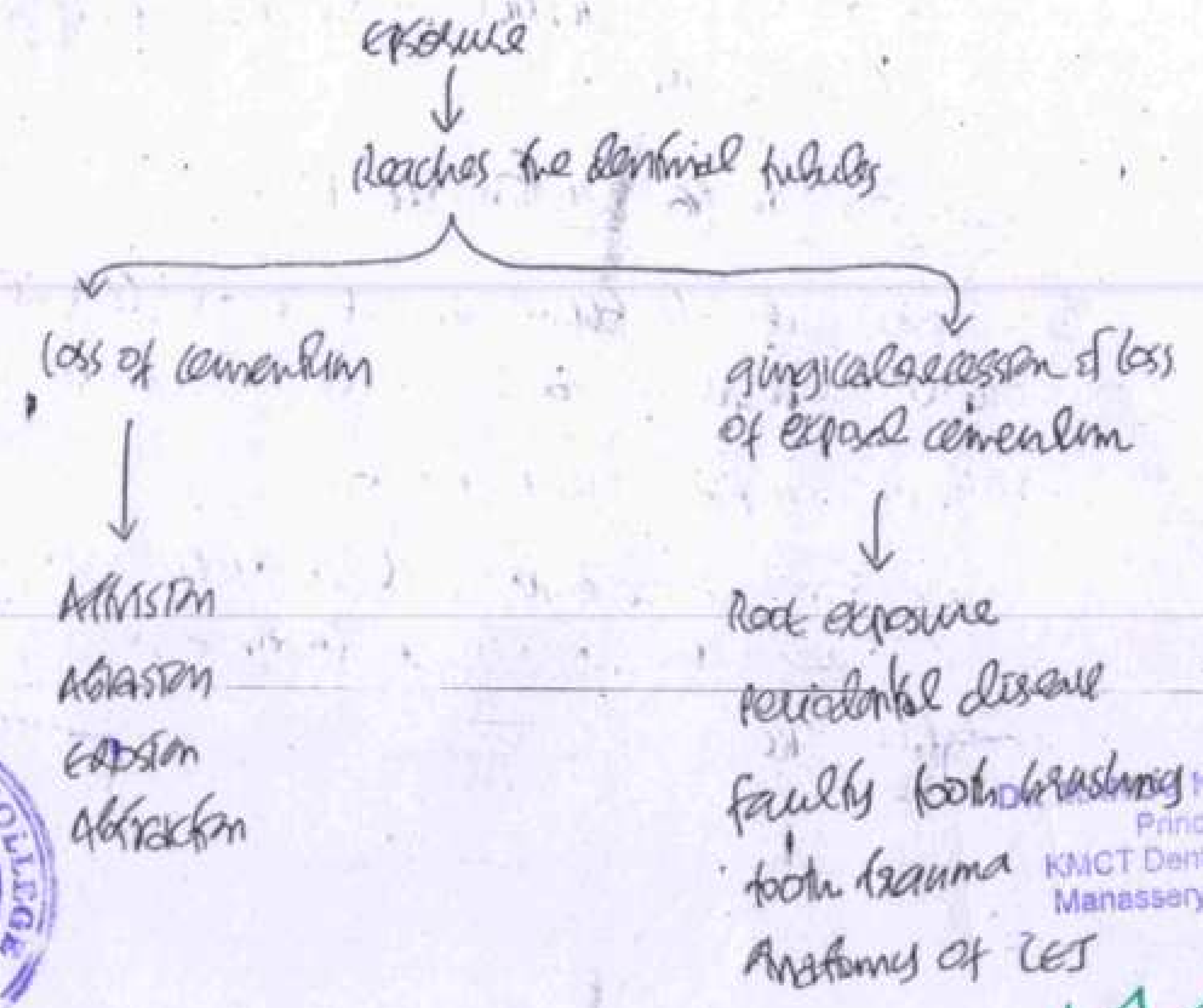
3. Hypersensitivity

38

definiton:

Hypersensitivity is defined as a sharp, short acting pain in the exposed dentin which response to stimuli like temperature, evaporative, tactile, cold & which cannot be ascribed as any other pathology or defect.

Etiology



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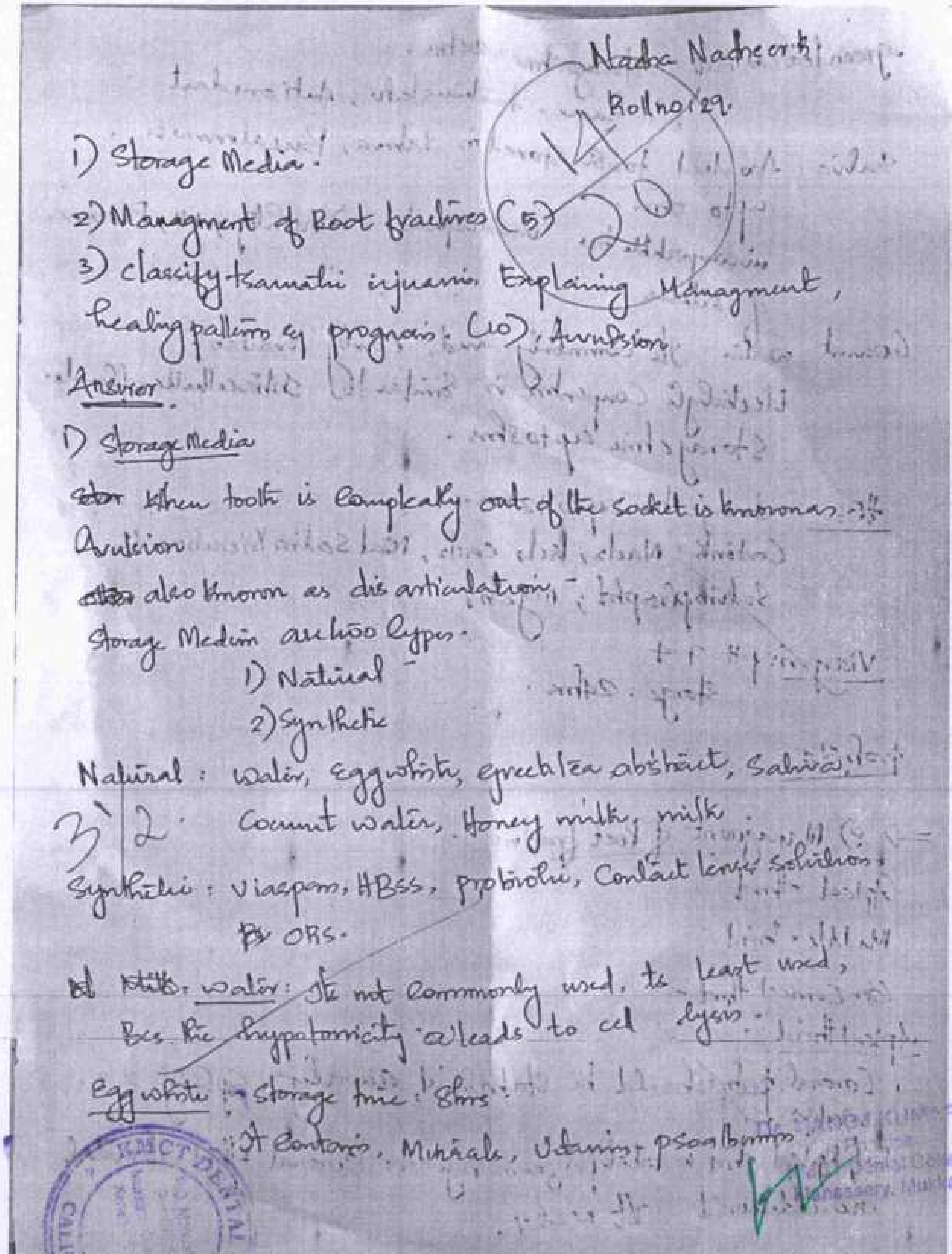

Nadha Nadheerh
Rollno: 29

14/20

1) Storage Media!
2) Managment of Root fractures (5)
3) classify traumatic injuries Explaining Managment, healing pattern & prognosis. (10), Avulsion

Answer.

1) Storage Media

~~stor~~ When tooth is completely out of the socket is known as Avulsion
~~also~~ also known as dis articulation.
Storage Medium are two types.
1) Natural
2) Synthetic

Natural : water, eggwhite, greentea abstract, Saliva,
Coconut water, Honey milk, milk

3½

Synthetic : viaspan, HBSS, probiotic, Contact lens solution, ~~Bs~~ ORS.

~~a) Milk~~ water: It's not commonly used, to least used, Bcs the hypotonicity ~~a~~ leads to cell lysis.

Eggwhite : storage time : 8hrs
: It contains, Minerals, Vitamins, proalbumin

Dr. [illegible] KUMAR K.P

Green tea extract : Storage time : 24hrs.
∴ It have bacteriostatic, Antioxidant.

Saliva : Avulsed tooth stored in Saliva, Buccal mucosa upto 2hrs.
incompatible bcs inadequate Osmolality, pH, Presence of bacteria.

Coconut water : Its commonly used, easily available.
Electrolyte Composition is similar to intracellular fluids.
Storage time upto 8hrs.

HBSS : Storage time upto 72hrs.
Contents : NaCl, KCl, $CaCl_2$, ~~Nat~~ Sodium bicarbonate, Sodium phosphate; $MgCl_2$;

Viaspan : pH : 7.4
Storage : 24hrs.

propolis :

⟹ 2) Management of Root fracture :-
Apical third
Middle third
~~Cor~~ Cervical third :-

Apical third :-
, Coronal portion should be stabilized accurately, splinting 2-3 weeks.
, if Apical third is vital prognosis is good, Coronal third also vital no additional Rt needed.

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- pulp in the Coronal portion is nonvital : RCT in Coronal portion.
and if in apical third.

mid-Root fracture

RCT for both Coronal & apical part
Apexification procedure is done

Cervical Root fractures

fracture level is near to alveolar crest. root extrusion is indicated. coronal segment is removed. & apical segment is extruded by orthodontic and allow restoration of missing Coronal portion.

3) classification

Ellis classification

class I: crown fracture involving enamel.
" 2: crown fracture not involving pulp.
" 3: crown fracture involving pulp.
" 4: fractured tooth ~~with~~ is nonvital with/without root fracture
" 5: ~~Av~~ Complete removal of the tooth from the socket
" 6: fracture of root with/without fracture of crown
" 7:
" 8: ~~crown~~ fracture of crown en masse
" 9: fracture of deciduous tooth.

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Managment Avulsion of tooth

~~the~~ Complete removal out of the socket.

managment of Avulsion

* ~~Extraoral~~ tooth is reimplanted before leaving dental clinic or its <15 mint out of socket.

Closed apex

Hold the tooth by crown

↓

clean the mouth with saline water

↓

Reimplant → gentle pressure applied with fingers and Bite with gauze → Splint for 7-10 days

↓

antibiotics (Tetracyclin)

↓

$Ca(OH)_2$ medicaments for 1 moths.

↓

remove splint

↓

followup.

openapex.

clean the Root surface with Saline.

↓

Root surface covered by minocycline hydrochloride bfr reimplantn

↓

Reimplant → pressure → Bite with gauze → Splint →

Radiograph, 1, 3, 6, 12 months.

↓

followup.

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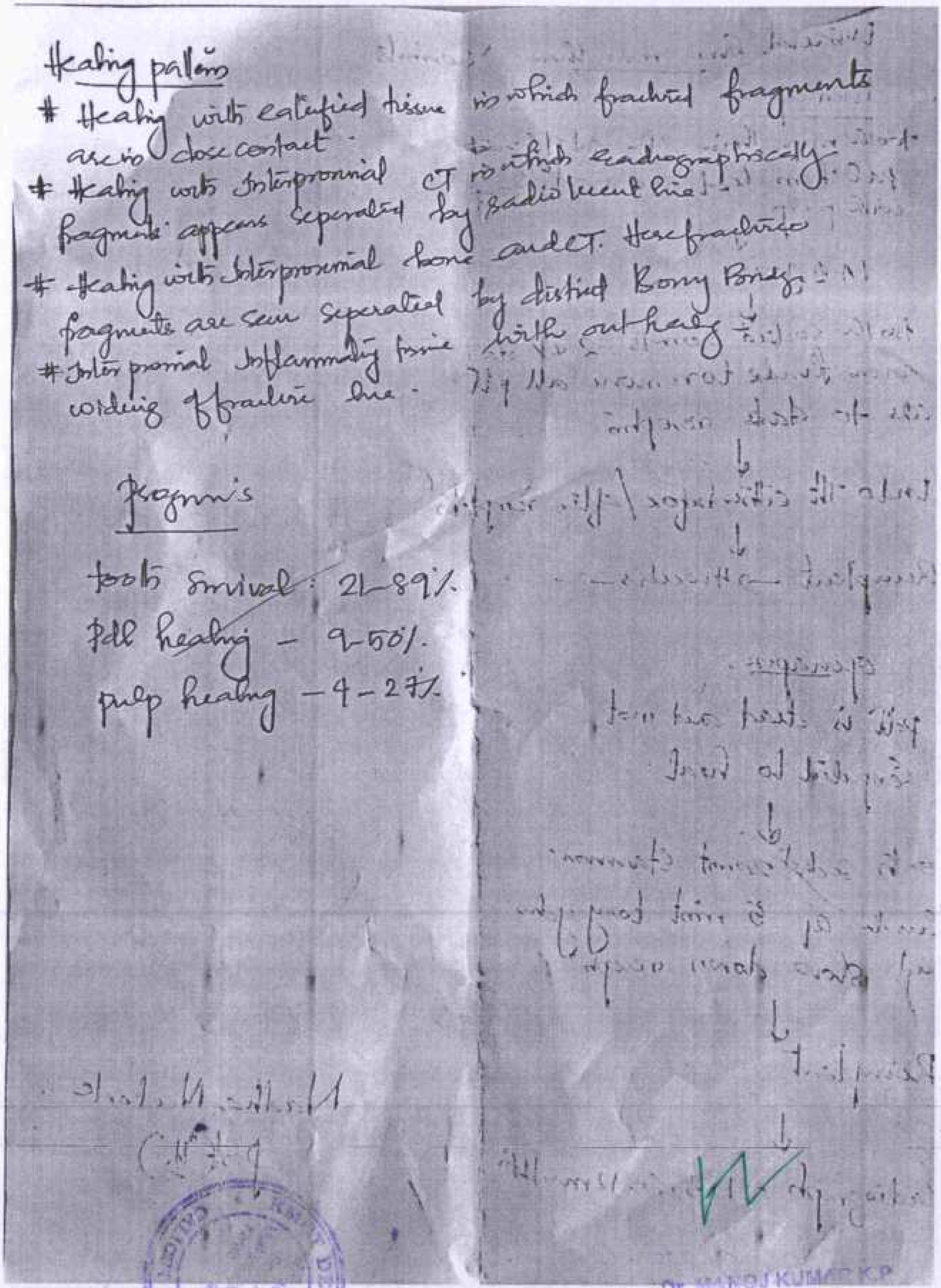

Healing pattern

- # Healing with calcified tissue in which fractured fragments are in close contact.
- # Healing with Interproximal CT in which radiographically fragments appears seperated by radiolucent line.
- # Healing with Interproximal bone and CT. Here fractured fragments are seen seperated by distinct Bony Bridge
- # Interproximal Inflammatory tissue without healing widening of fracture line.

Prognosis

tooth survival: 21-89%

PDL healing - 9-50%

pulp healing - 4-27%

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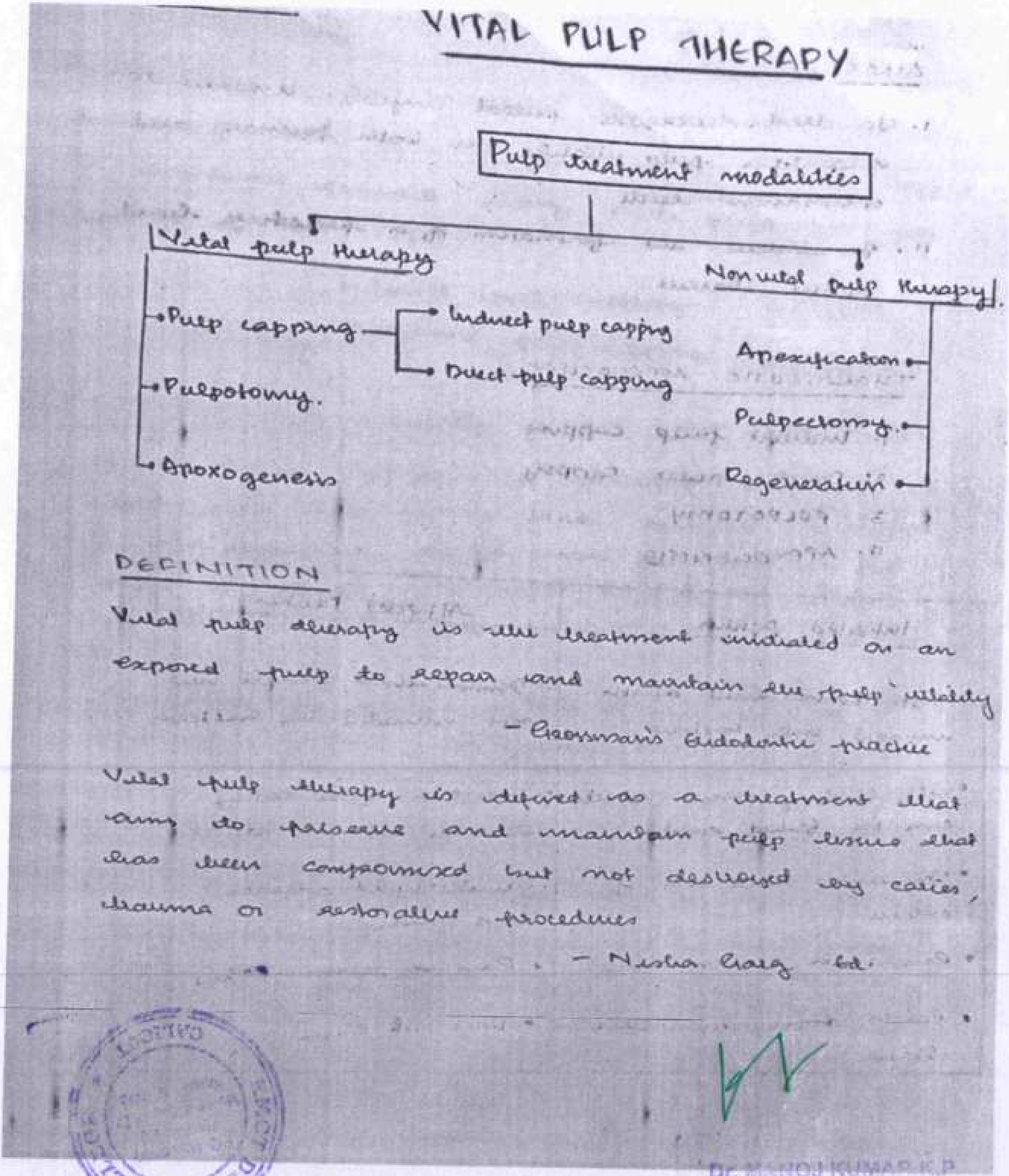
Provision of Special Notes:

Specialized study materials, including simplified notes and summaries, are provided to slow performers, aiding in clarifying difficult concepts, personalized learning and focus on key areas.



VITAL PULP THERAPY

Pulp treatment modalities

- Vital pulp therapy
  - Pulp capping
    - Indirect pulp capping
    - Direct pulp capping
  - Pulpotomy.
  - Apexogenesis
- Non vital pulp therapy.
  - Apexification
  - Pulpectomy.
  - Regeneration

DEFINITION

Vital pulp therapy is the treatment initiated on an exposed pulp to repair and maintain the pulp vitality

— Grossman's Endodontic practice

Vital pulp therapy is defined as a treatment that aims to preserve and maintain pulp tissue that has been compromised but not destroyed by caries, trauma or restorative procedures

— Nisha Garg ed.

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AIMS

1. To treat reversible pulpal injuries in order to maintain pulp vitality in both primary and permanent teeth.

11. To induce the formation of a protective hard tissue barrier.

THERAPEUTIC APPROACHES

1. Indirect pulp capping
2. Direct pulp capping.
3. PULPOTOMY
4. APEXOGENESIS

Infected Dentin	Affected Dentin
• Soft, demineralised dentin invaded with bacteria	• Demineralised dentin but not invaded by bacteria
• Soft leathery tissue which can be flaked easily	• Does not flake easily although soft in nature
• Irreversible denaturation of collagen	• Unaltered cross collagen cross linking
• Cannot be remineralised	• Can be remineralised
• Caries detecting dyes can stain	• Does not stain

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PULP CAPPING

Pulp capping is the procedure used in dental restorations to prevent pulp from degeneration after being exposed or accidental exposure during tooth preparation. It can be of two types

- Direct pulp capping
- Indirect pulp capping.

1) INDIRECT PULP CAPPING

Indirect pulp capping is a procedure performed in a tooth with deep carious lesion adjacent to the pulp. In this procedure, caries near the pulp is left in place to avoid pulp exposure and is covered with a biocompatible material.

According to Cohen, indirect pulp therapy avoids pulp exposure in teeth with deep carious lesion in which there is no evidence of pulp degeneration or periapical disease

Rationale

- Decalcification of the dentin precedes bacterial invasion within the dentin
- Removal of outer carious dentin removes majority of bacteria reducing further decalcification of deeper dentin.
- Sealing the lesion to allow the pulp to generate reparative dentin.

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Objective

- Arrest carious process.
- Promote dentinal sclerosis
- Stimulate formation of reactionary dentin.
- Remineralisation of carious dentin while preserving pulp vitality.

Indications

- Deep carious lesion near the pulp tissue but not involving it
- No history of spontaneous toothache or history of mild discomfort from chemical and thermal stimuli
- No tenderness to percussion.

Contraindication

- Presence of pulp exposure.
- Radiographic evidence of pulp pathology.
- History of spontaneous toothache
- Tooth sensitive to percussion
- Mobility present.
- Root resorption or radicular disease is present radiographically.

Clinical technique

In 1938, Bodecker introduced the stepwise excavation technique for the treatment of teeth with deep caries for preservation of pulp vitality where exposure of pulp is probable.

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Two appointment technique

First sitting

- Anesthetize the tooth and apply rubber dam to isolate it
- Remove soft, necrotic and infected caries either with spoon excavator or round bur using a slow speed handpiece. Use fissure bur and extend it to sound tooth structure
- Leave a thin layer of dentin or some amount of caries to avoid exposure.
- Place calcium hydroxide paste on the exposed dentin
- Cover calcium hydroxide with durable interim restoration
- Evaluate the tooth after 6-8 weeks.

Second visit (6-8 weeks later)

If a tooth has been asymptomatic, the surrounding soft tissues are free from swelling and the temporary filling is intact, the second step can be performed

- Obtain bitewing radiograph to assess the presence of reparative dentin
- Give local anesthesia and apply rubber dam.
- Take care while removing restoration and calcium hydroxide dressing.
- Remove the remaining affected carious dentin which appears hydrated and flaky. The area around the potential exposure should appear whitish and may be soft, and should not be disturbed.
- Gently clean and dry the cavity.
- Cover the entire floor with a hard setting calcium hydroxide dressing.
- Place reinforced ZnO eugenol or GIC over $Ca(OH)_2$ &

Give final restoration with composite / amalgam over it.

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One appointment technique.

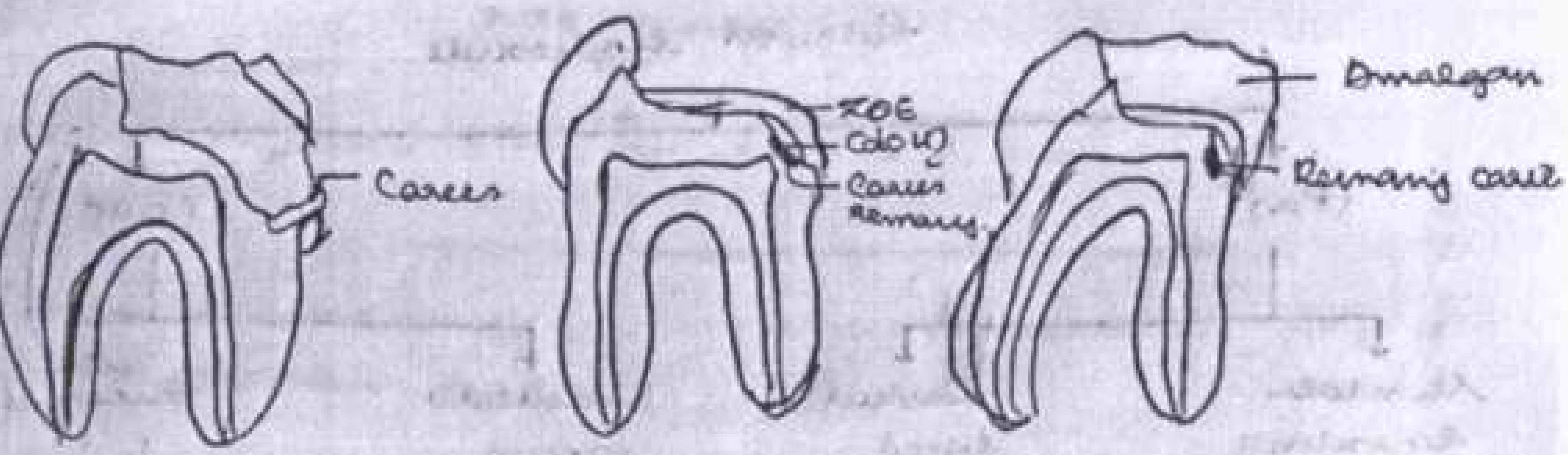
- Anesthetize the tooth & apply rubber dam to isolate it
- Remove soft, necrotic & infected caries either with spoon excavator or large round bur using a slow speed hand piece. Remove all soft moist and leathery lesions of dentin
- Leave a thin layer of dentin and some amount of caries to avoid exposure
- Place calcium hydroxide paste on the exposed dentin
- Cover the calcium hydroxide with durable interim restoration. Ensure proper seal of the restoration.

The removal of bacteria and substrate together with an effective seal of restoration provides the suitable environment for pulp to recover its laying down secondary den

It is difficult to state which treatment approach is better because no high quality randomised clinical trials are available. The need to uncover the residual dentin to remove dehydrated dentin and view the sclerotic changes has been questioned. The second entry subjects the pulp to potential risk of exposure owing to overzealous re-excavation.

Factors affecting prognosis of indirect pulp capping

- If RDT is approximately 0.5 – 2mm, prognosis is better
- Choice of indirect pulp capping agent; though many new materials have been introduced, Ca $(OH)_2$ has been used successfully due to its high pH & hard tissue formation.



Schematic representation of indirect pulp capping.

A) Indirect pulp capping is done in cases when carious dentin is quite close to pulp.

B) Placement of $Ca(OH)_2$ or ZnO eugenol dressing after caries excavation

C) Permanent restoration of tooth.

Ideal requirements of a pulp capping agent

Cohen & Combe gave the following requirements of an ideal pulp capping agent:

- should maintain pulp vitality
- should be bactericidal / bacteriostatic in nature
- should be able to provide bacterial seal.
- should stimulate reparative dentin formation.
- should be radiopaque in nature.
- should be able to resist the forces under restoration.

Materials used for pulp capping

- Calcium hydroxide.
- Mineral trioxide aggregate (MTA)
- Biodentine
- Bioaggregate.
- Bonding systems.
- Tricalcium phosphate.

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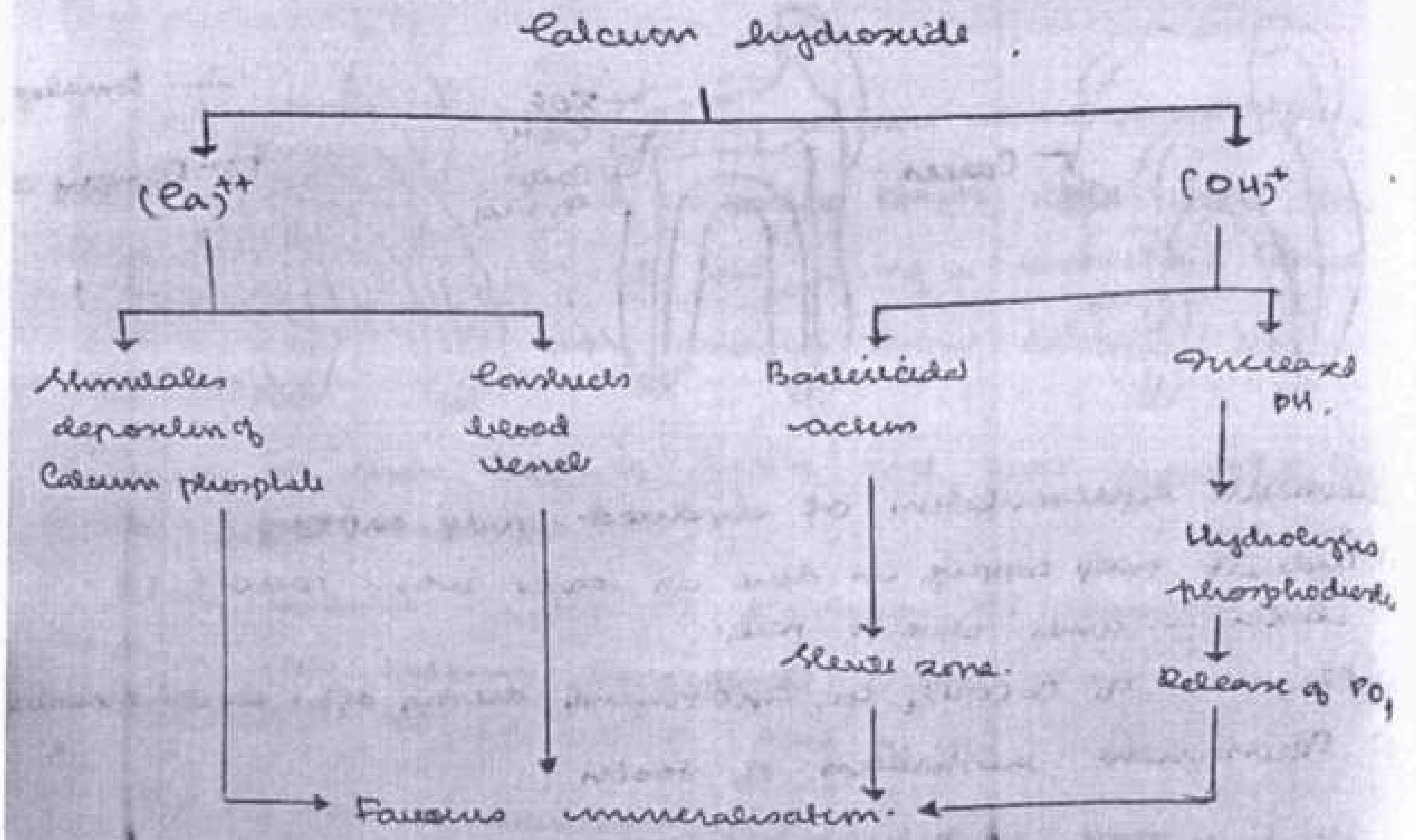
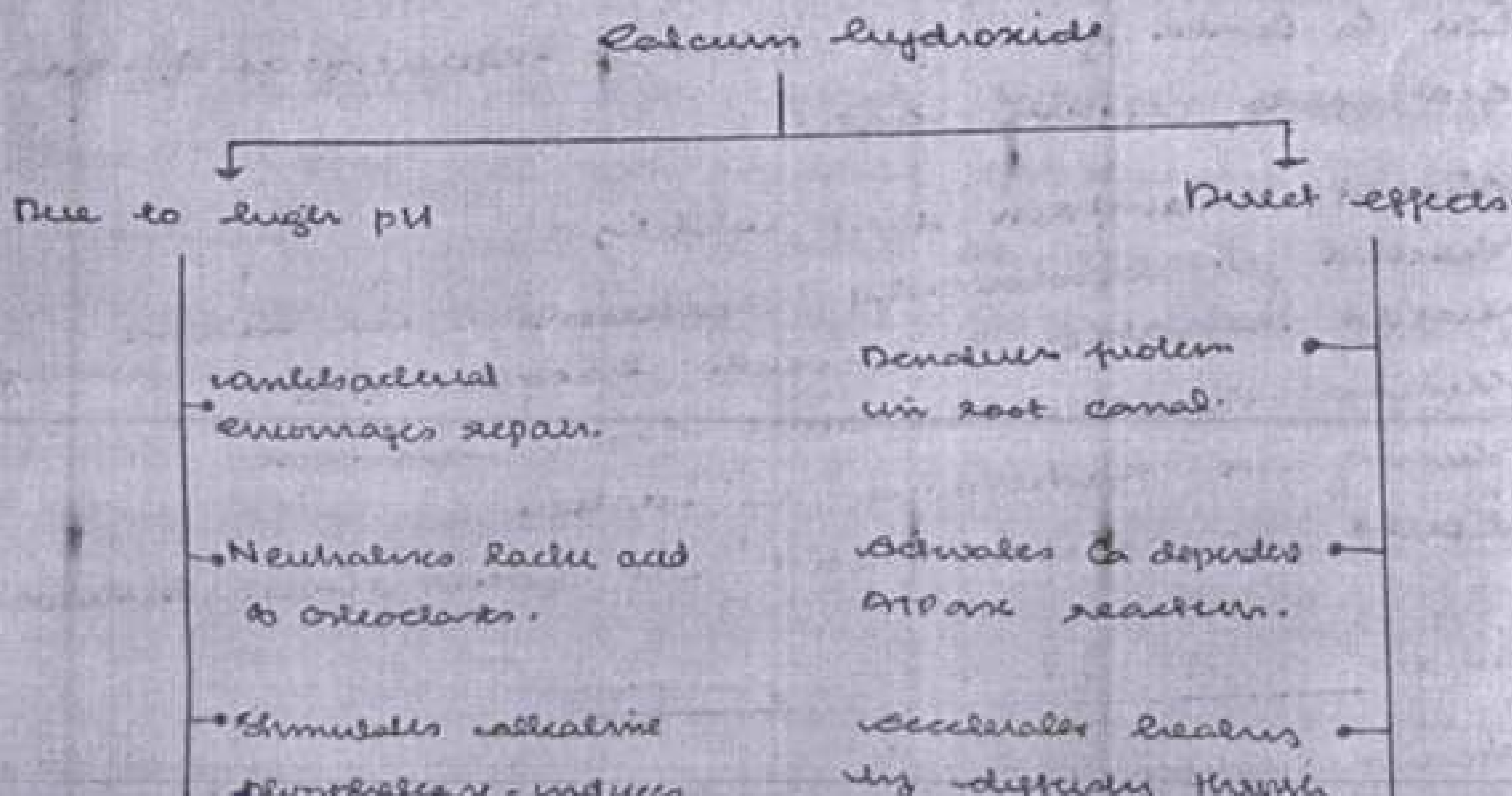


Mechanism of action of hard tissue formation


Calcium hydroxide
Due to higher pH
Direct effects
antibacterial encourages repair.
Neutralises lactic acid of osteoclasts.
Stimulates alkaline phosphatase - induces calcification
Denatures protein in root canal.
Activates Ca dependent ATPase reaction.
Accelerates healing by diffusing through dentinal tubules.
Dentin bridge formation.

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MTA Powder.

↓

Hydration (in the presence of water / blood)

↓

Porous gel solidifies to a hard crystalline structure

Increase in pH to 12.5

2 DIRECT PULP CAPPING

Direct pulp capping involves the placement of biocompatible material over the site of pulp exposure to maintain vitality and promote healing.

When a small mechanical exposure of pulp occurs during cavity preparation or following a trauma, an appropriate protective base should be placed in contact with the exposed pulp tissue to maintain the vitality of the remaining pulp tissue.

Rationale

To encourage young and healthy pulp to initiate a dentin bridge and form a wall over the exposure site.

Objective.

The objective of DPC is to seal the pulp against bacterial leakage, protect the pulp from thermal stimulus, encourage the pulp to wall off the exposure site by initiating a dentin bridge and maintain the vitality of the underlying pulp.

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Indications

- Small pinpoint (<1mm) mechanical exposure of pulp surrounded by sound dentin during tooth prepara
- Traumatic injury (<24h) with pinpoint exposure.
- No or minimal bleeding at the exposure site

Contraindications.

- Carious or wide pulp exposure.
- Spontaneous and nocturnal toothache.
- Uncontrolled bleeding at the exposure site.
- Radiographic evidence of pulp pathology
- Excessive tooth mobility.
- Purulent or serous exudates from exposure site

Clinical procedure

Administer local anesthesia & isolate the tooth with rubber dam.

↓

Clean and dry the exposure site

↓

Control the hemorrhage with 3-5.2% sodium hypochlorite applied for 2-10 min.

↓

Apply calcium hydroxide over the exposed area

↓

Give interim restoration with ZnO Eugenol for 6-8 week

↓

After evaluation, replace the interim restoration with permanent restoration

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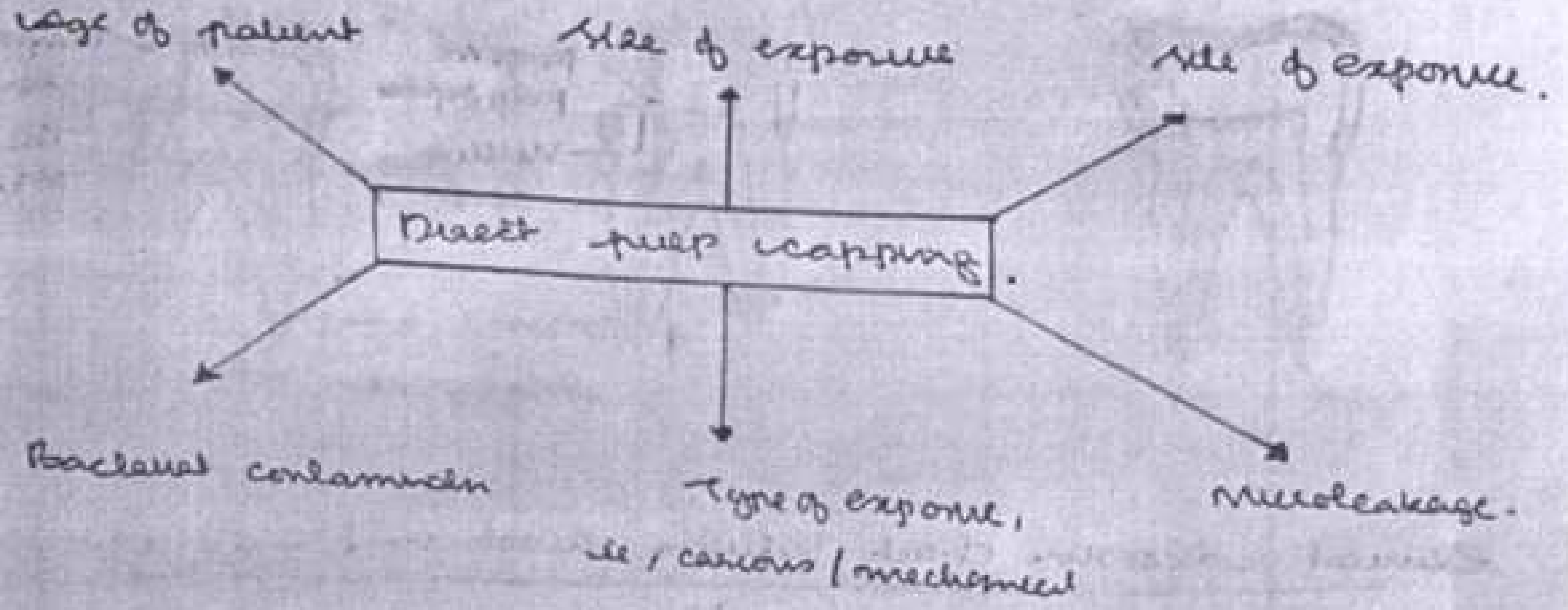
Factors affecting success of pulp capping



Why DPC is not recommended in primary teeth

1. Localization of infection or inflammation in primary teeth is poorer than in permanent teeth
   — Mc Donalds (1956)
2. Effects of dentinal caries are seen very rapidly in primary teeth than the permanent teeth
   — Rayner & Southam (1979)
3. Due to presence of thin enamel & dentinal layers, primary pulp gets rapidly affected by caries. Once the pulp gets exposed by caries, prognosis for DPC is poor
   — Kennedy & Kopel (1985)
4. Undifferentiated mesenchymal cells may differentiate into osteoclasts in response to pulp capping material resulting in internal resorption
   — Kennedy (1985)
5. Primary teeth show incidences of internal resorption because of already ongoing root resorption process
   — T. Stanley (19[illegible])

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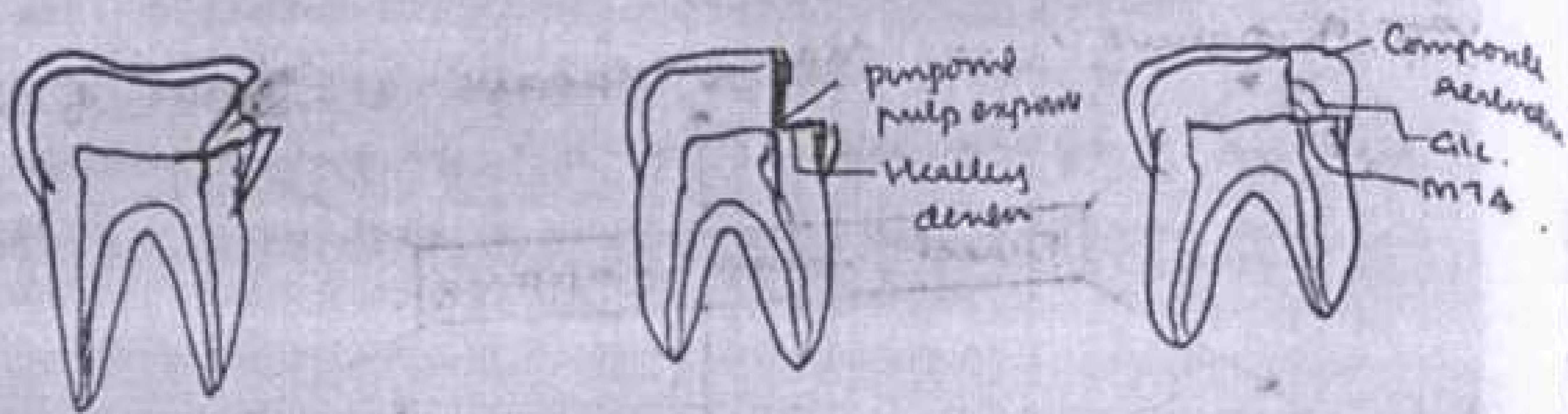
Schematic representation of direct pulp capping



Clinical decision chart between direct and indirect pulp capping

Deep carious lesion

↓

Anesthesia & rubber dam isolation

↓

Caries removal
- Infected dentin - slow speed handpiece
- Peripheral carious dentin - spoon shape excavator

No pulpal exposure & no signs of pulpitis

↓

Remaining infected dentin is covered with Ca(OH)2 and an overlying base of IRM

↓

Wait for 3-8 weeks

↓

Patient asymptomatic

↓

Anesthesia & rubber dam isolation

↓

Temporary filling removed carefully

↓

Pulp exposure

↓

Direct pulp capping/
Cvek's partial pulpotomy/
full pulpotomy.

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↓

Carefully further excavation and clinically confirm the changes in colour or hardness of firm dentin

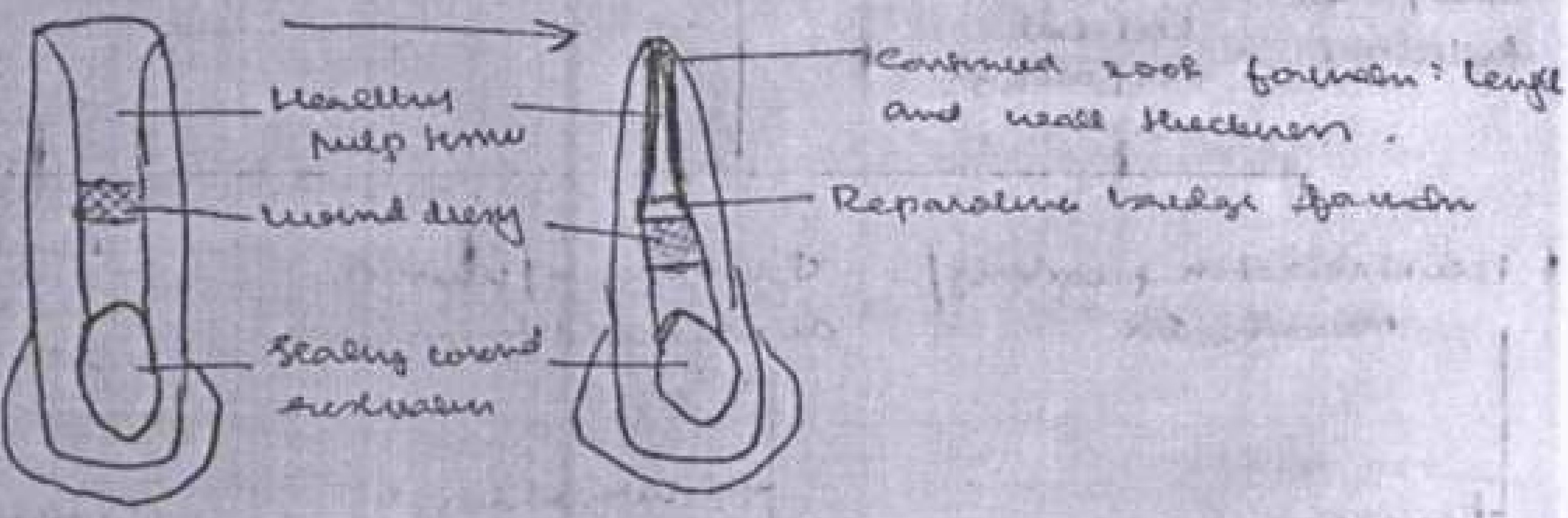
↓

Hard set, $Ca(OH)_2$ is placed followed by an enamel base and a bonded composite restoration / amalgam.

③ APEXOGENESIS

Apexogenesis is defined as the treatment of vital pulp by capping or pulpotomy to permit continued growth of root and closure of root apex.

Schematic representation of apexogenesis


Healthy pulp tissue
Wound dressing
Sealing coronal restoration
Continued root formation: length and wall thickness.
Reparative bridge formation

Young permanent tooth with immature root and open apex.

Shows root formation of reparative dentin and thickening of root canal wall after apexogenesis procedure.

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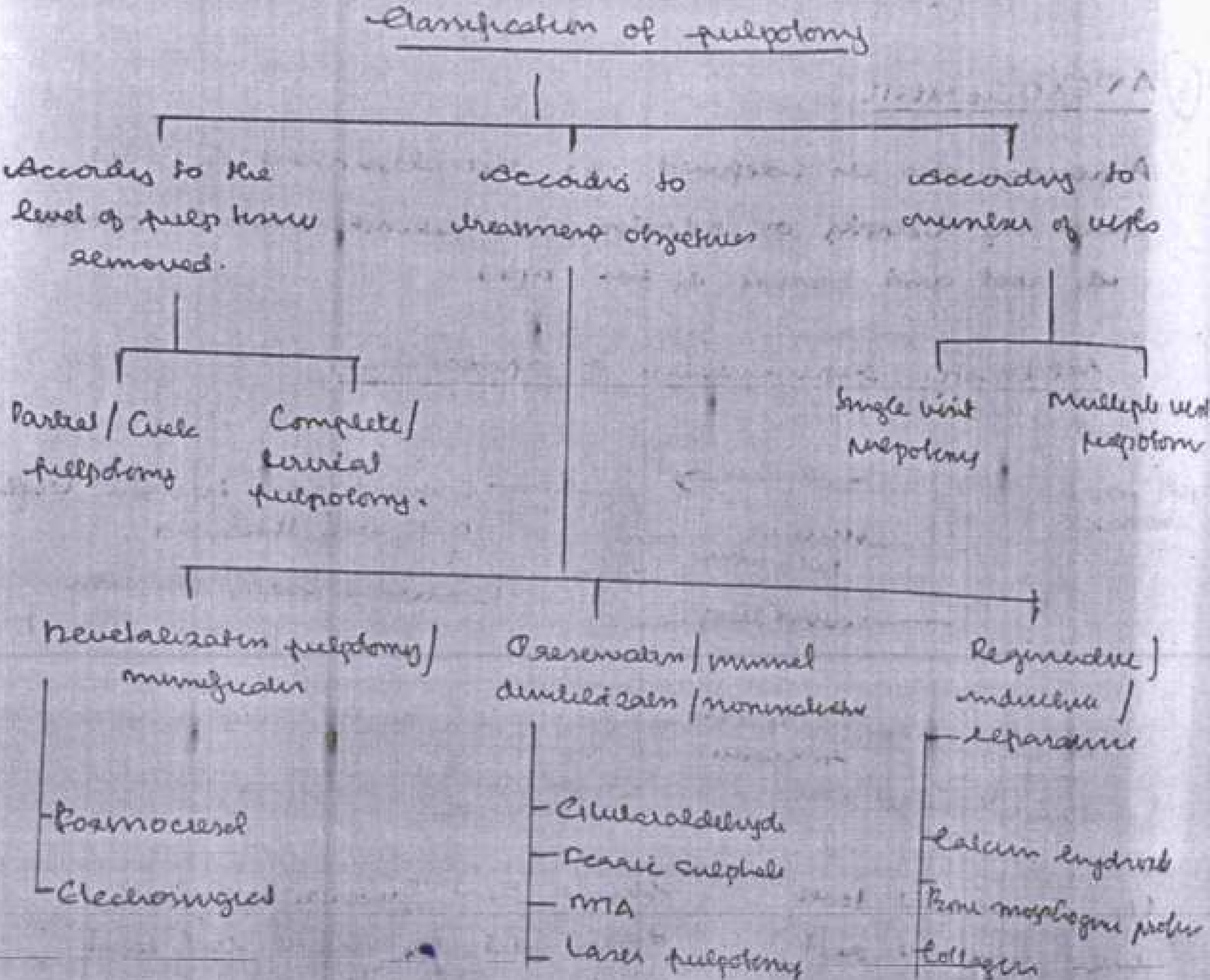
(4) PULPOTOMY

It refers to complete removal of the coronal portion of the dental pulp followed by placement of a suitable medicament that will promote healing & preserve tooth vitality

- Finn (1995)


Classification of pulpotomy
According to the level of pulp tissue removed.
Partial / Cvek pulpotomy
Complete / cervical pulpotomy.
According to treatment objectives
According to number of visits
Single visit pulpotomy
Multiple visit pulpotomy
Devitalization pulpotomy / mummification
Formocresol
Electrosurgical
Preservation / minimal devitalization / noninductive
Glutaraldehyde
Ferric sulphate
MTA
Laser pulpotomy
Regenerative / inductive / reparative
Calcium hydroxide
Bone morphogenic protein
Collagen

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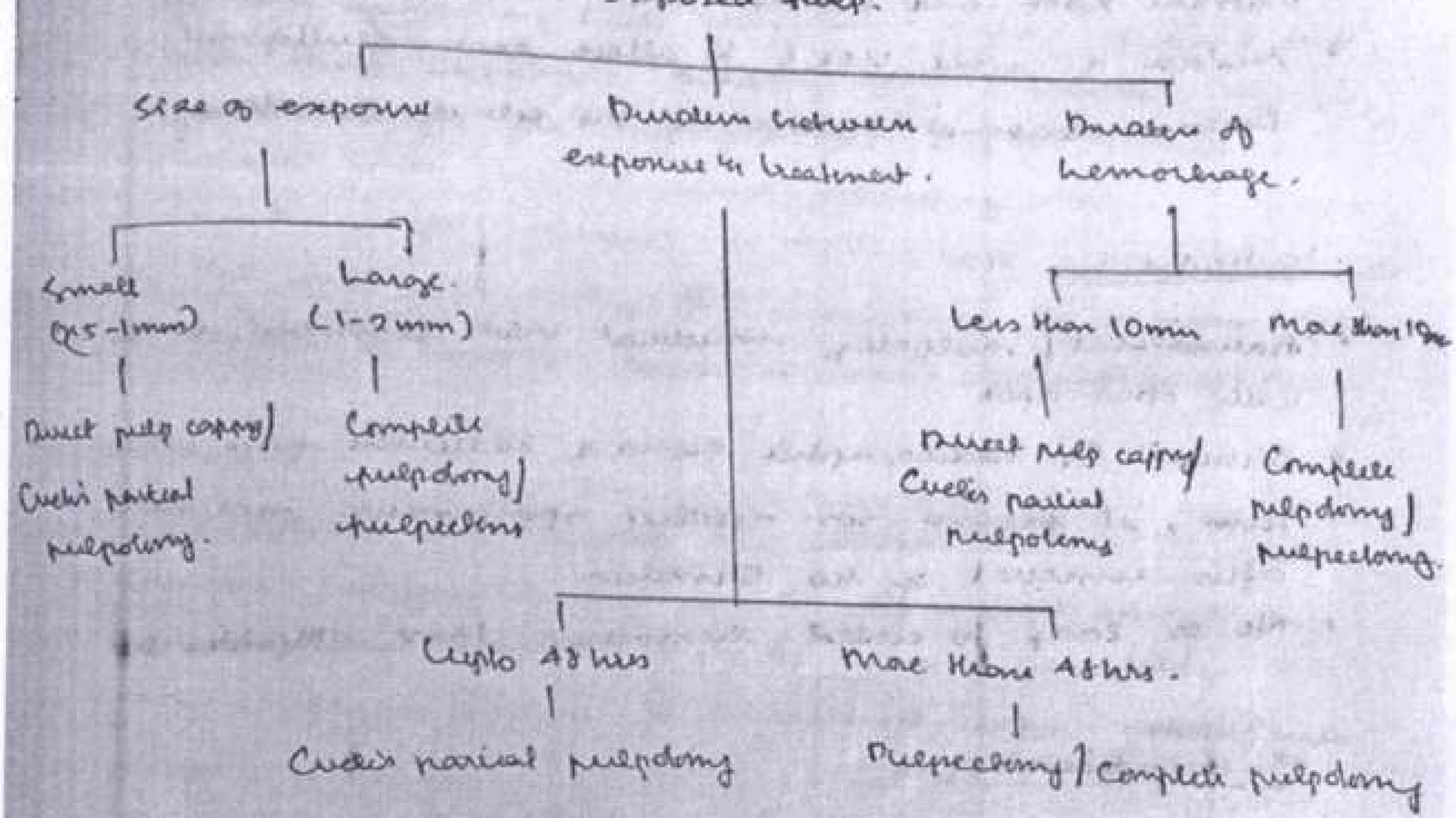
Clinical decision making chart for management of pulp exposure.


Exposed pulp.
Size of exposure
Duration between exposure & treatment.
Duration of hemorrhage.
Small (0.5-1mm)
Large (1-2mm)
Direct pulp capping/ Cvek's partial pulpotomy.
Complete pulpotomy/ pulpectomy
Less than 10min
More than 10m
Direct pulp capping/ Cvek's partial pulpotomy
Complete pulpotomy/ pulpectomy.
Upto 48 hrs
More than 48 hrs.
Cvek's partial pulpotomy
Pulpectomy/ Complete pulpotomy

Rationale

- Maintain integrity of radicular pulp tissue to allow continued root growth
- Pulp of immature teeth has significant reparative potential
- Pulp revascularization and repair occurs more efficiently in tooth with open apex.
- Root end closure occurs in a tooth with vital pulp of minimum inflammation

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i) Cvek pulpotomy / partial pulpotomy / $Ca(OH)_2$ pulpotomy / Young permanent partial pulpotomy

It was given by Cvek in 1993. Cvek showed that, with pulp exposures resulting from traumatic injuries, pulpal changes are characterised by a proliferative response with inflammation extending only a few mms into the pulp whereas in teeth with carious exposures to the pulp, it may be necessary to remove pulpal tissue to a greater depth to reach noninflamed tissue

Procedure

- Anesthetize and isolate the tooth
- Remove carious lesion with a slow speed round bur
- Remove the coronal pulp & control hemorrhage using sodium hypochlorite & moistened cotton pellet with slight pressure
- Place calcium hydroxide or MTA over the amputation site
- If calcium hydroxide is placed, recall the patient, check dentin bridge formation, and place permanent restoration

ii) Cervical / Complete pulpotomy

In young permanent teeth, cervical pulpotomy is performed to allow root maturation. The procedure is performed in teeth in which it is assumed that healthy pulp tissue with a potential to produce a dentin bridge and complete the formation of the root, still remain in the canal. The technique is same as that of partial pulpotomy except that it extends to root orifice

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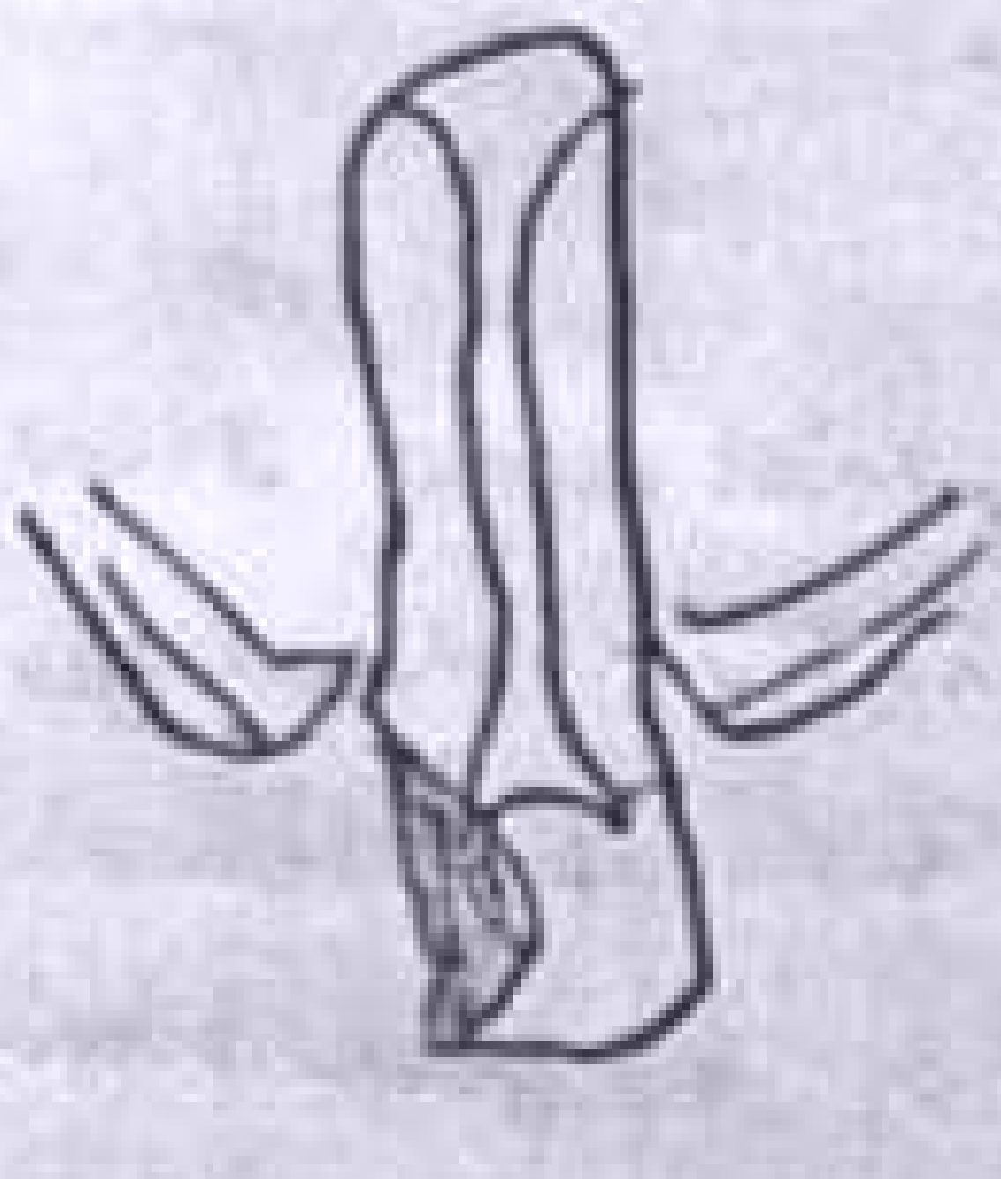
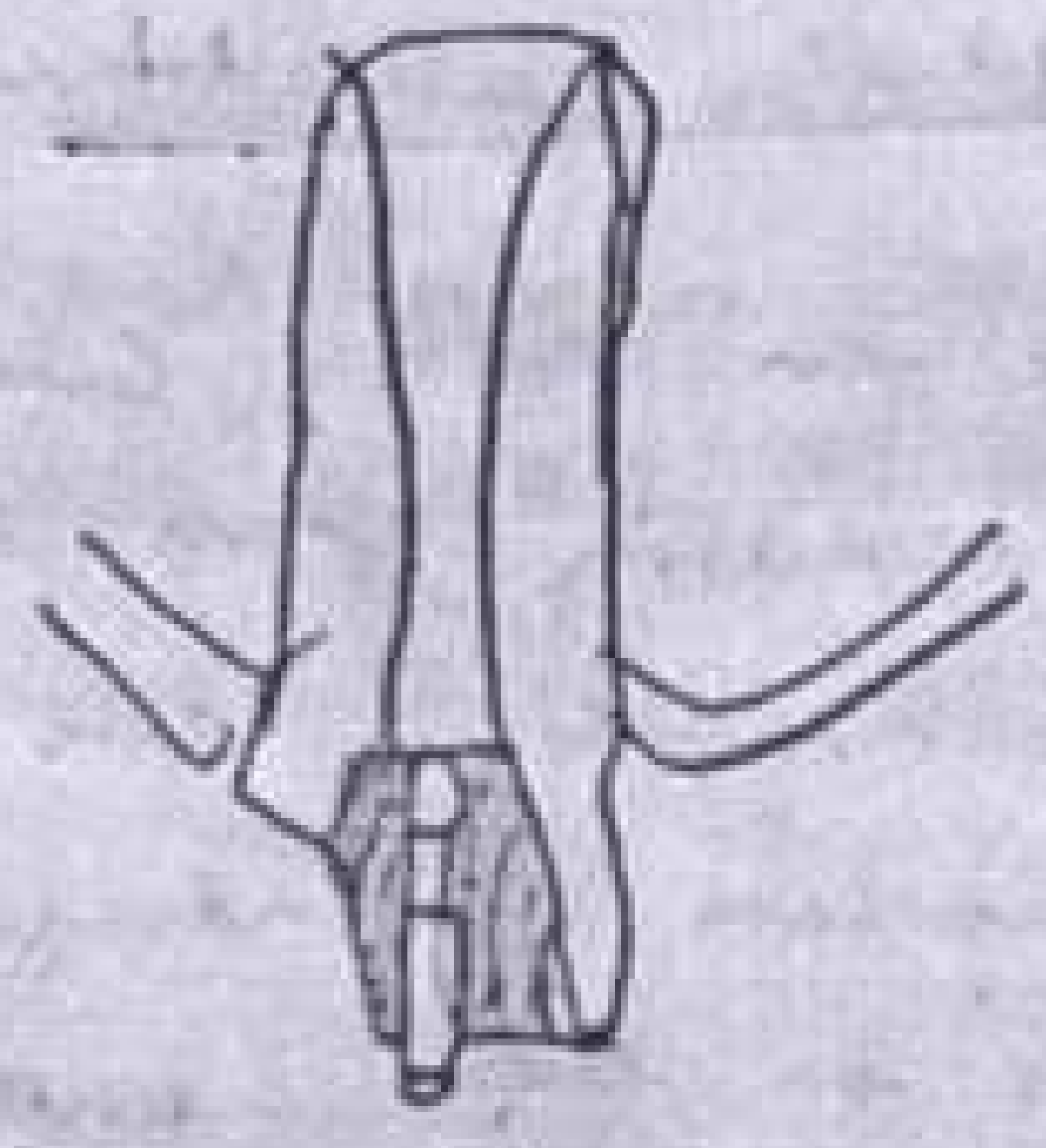
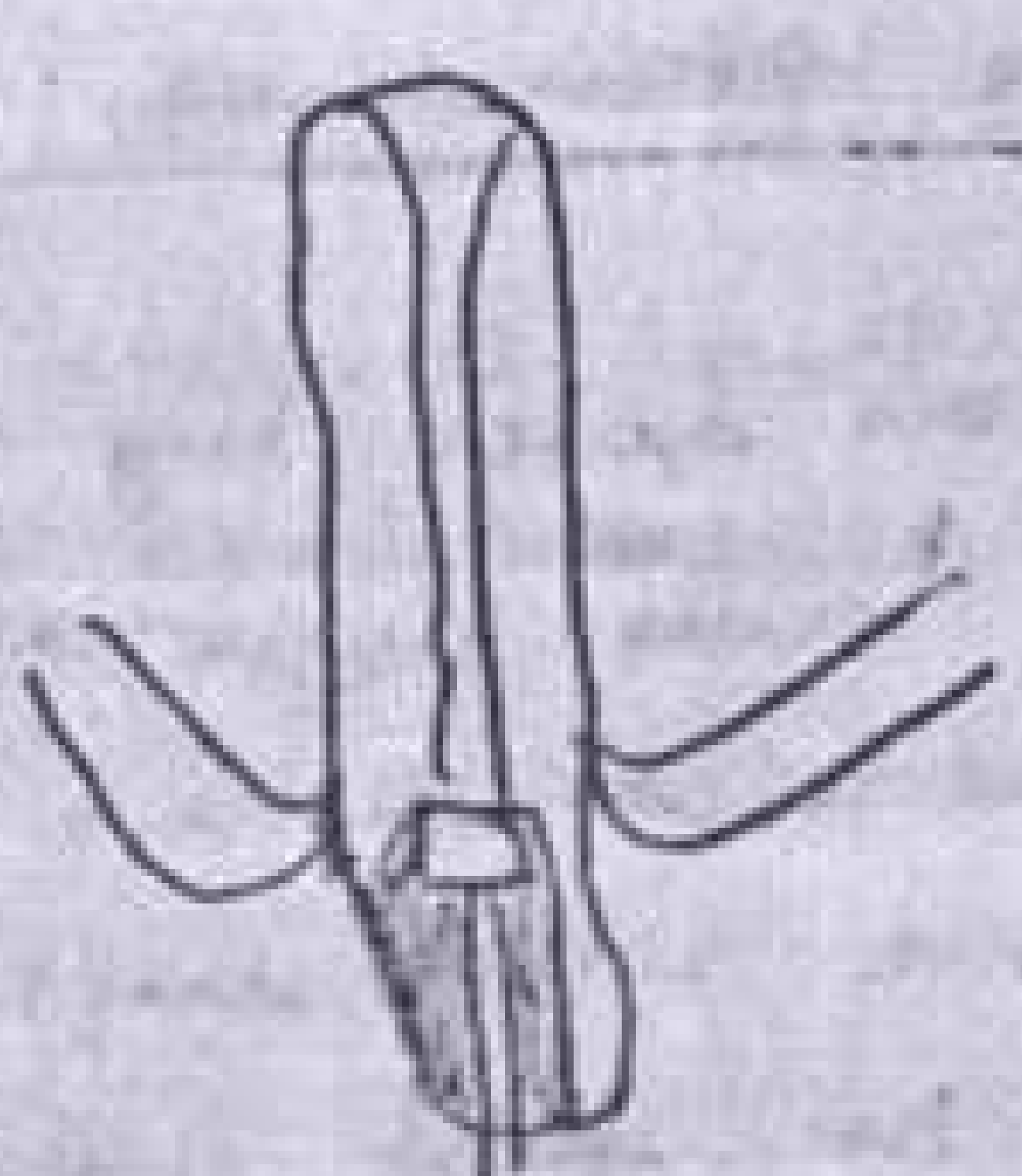
PARTIAL PULPOTOMY.



A. partial pulpotomy is indicated in patients with incomplete root formation

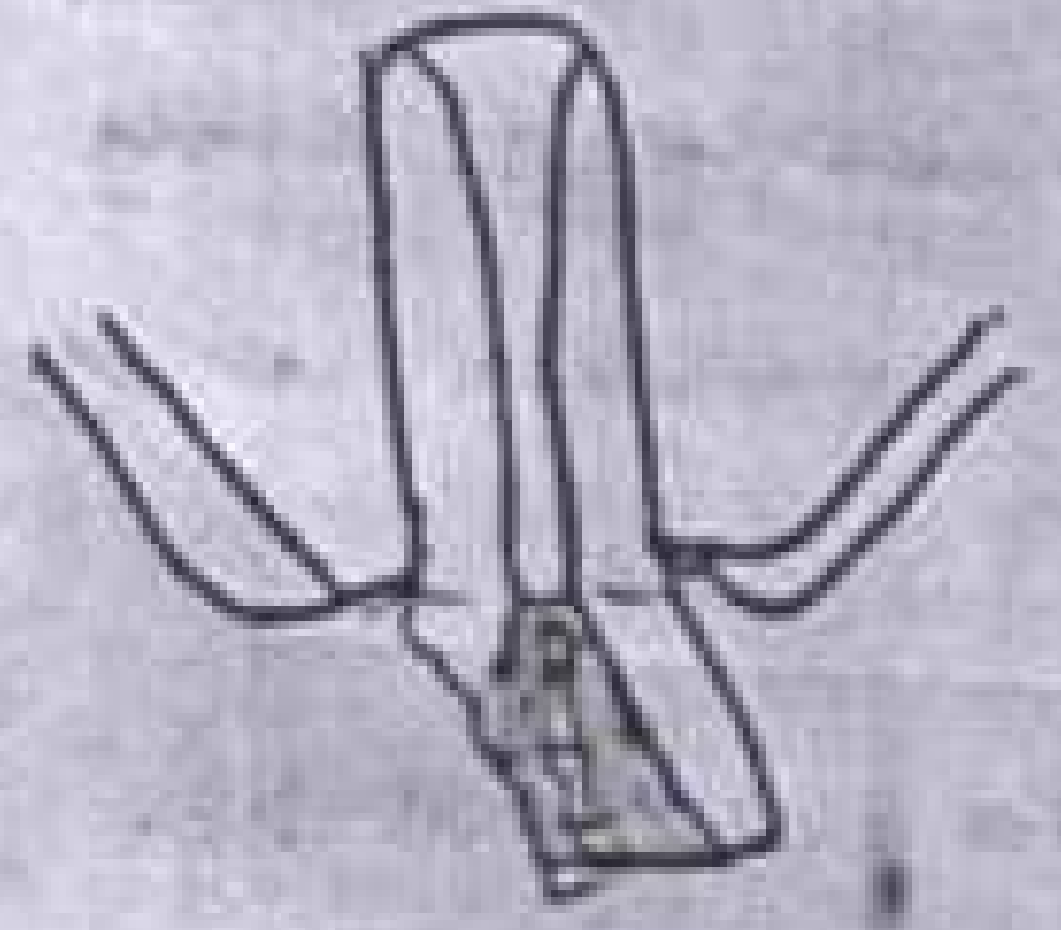


B) preparation of cavity 1-2mm deep into pulp.

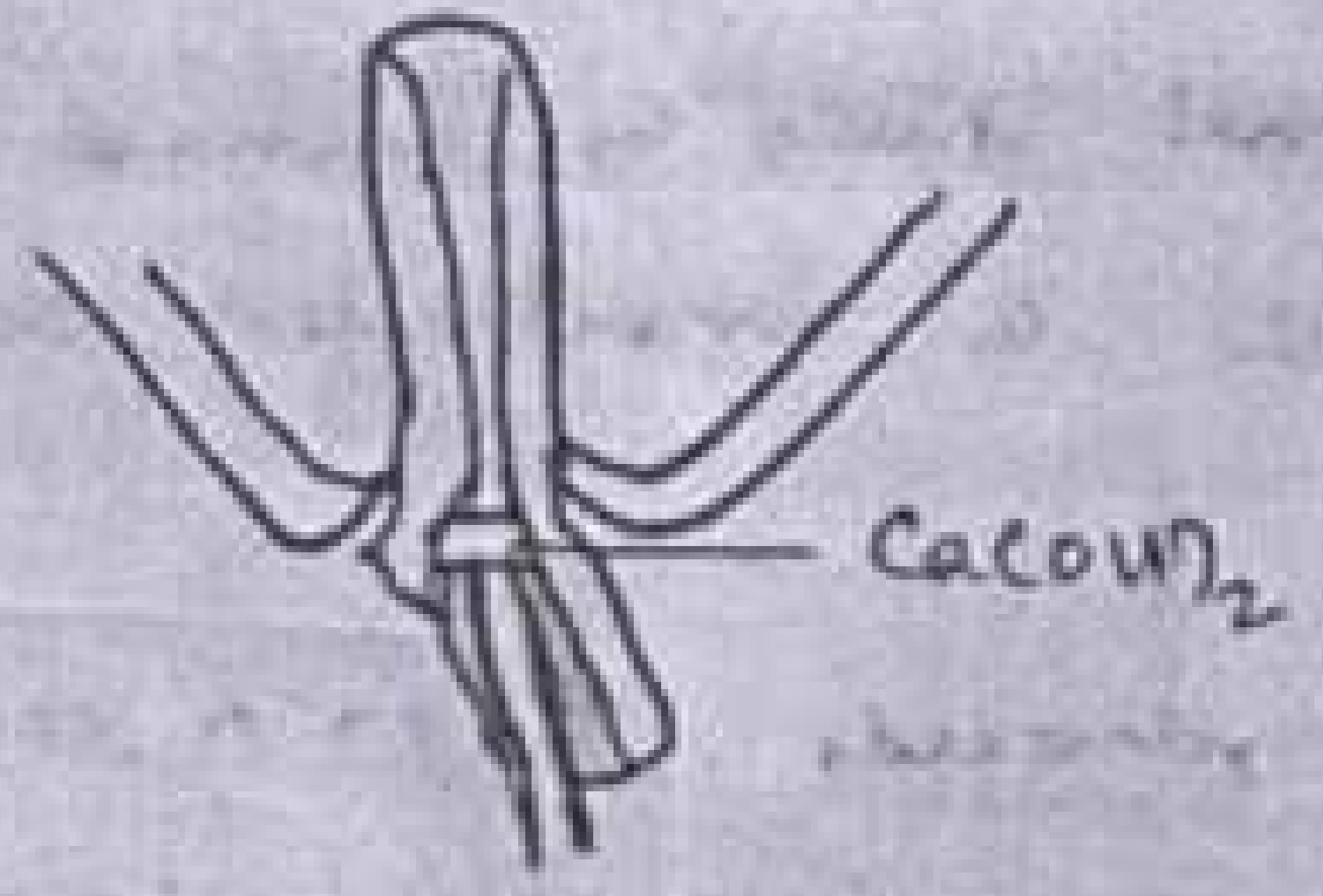


C) placement of $Ca(OH)_2$ over pulp

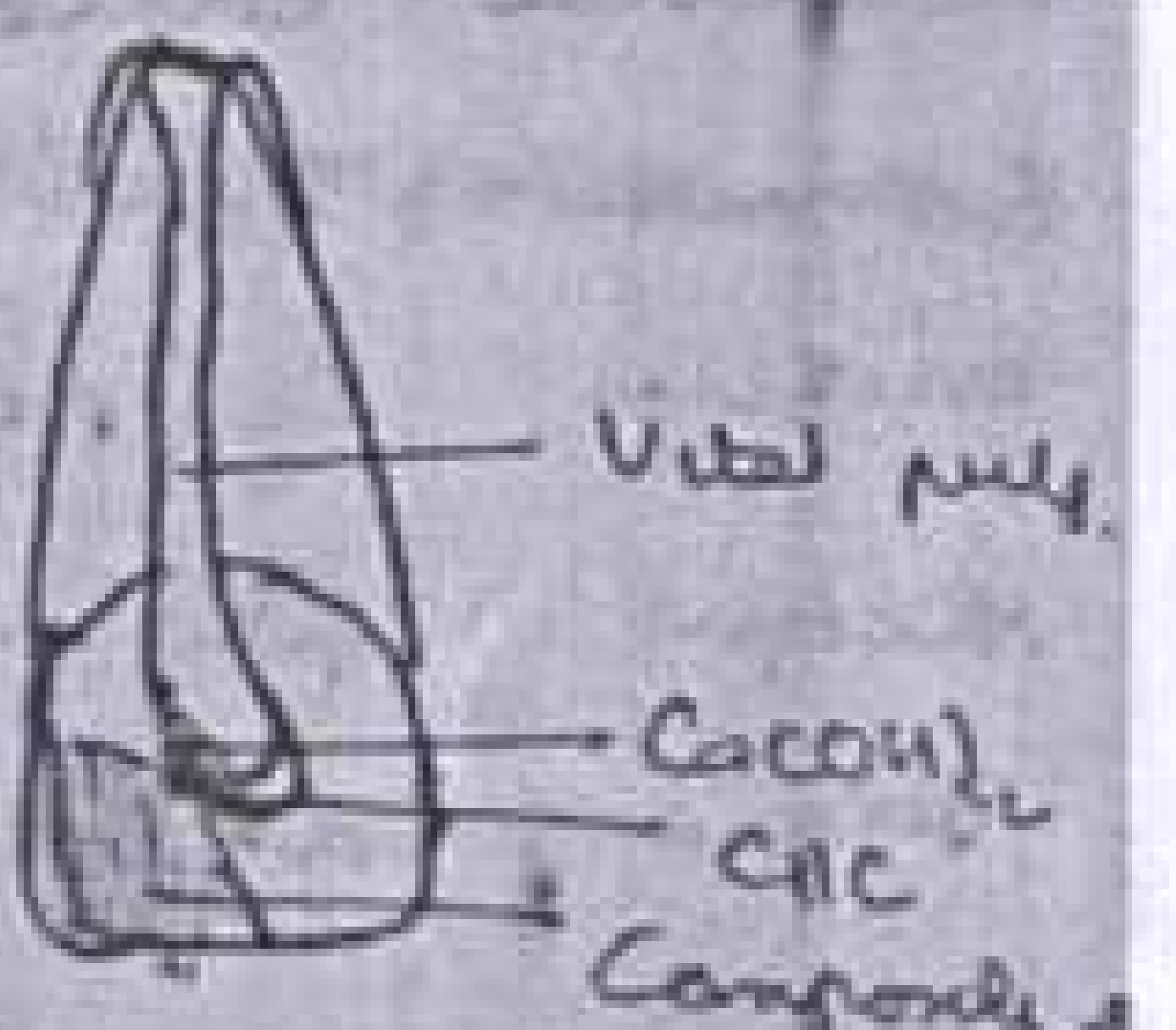
COMPLETE PULPOTOMY.



A) Removal of coronal pulp up to the level to root orifices

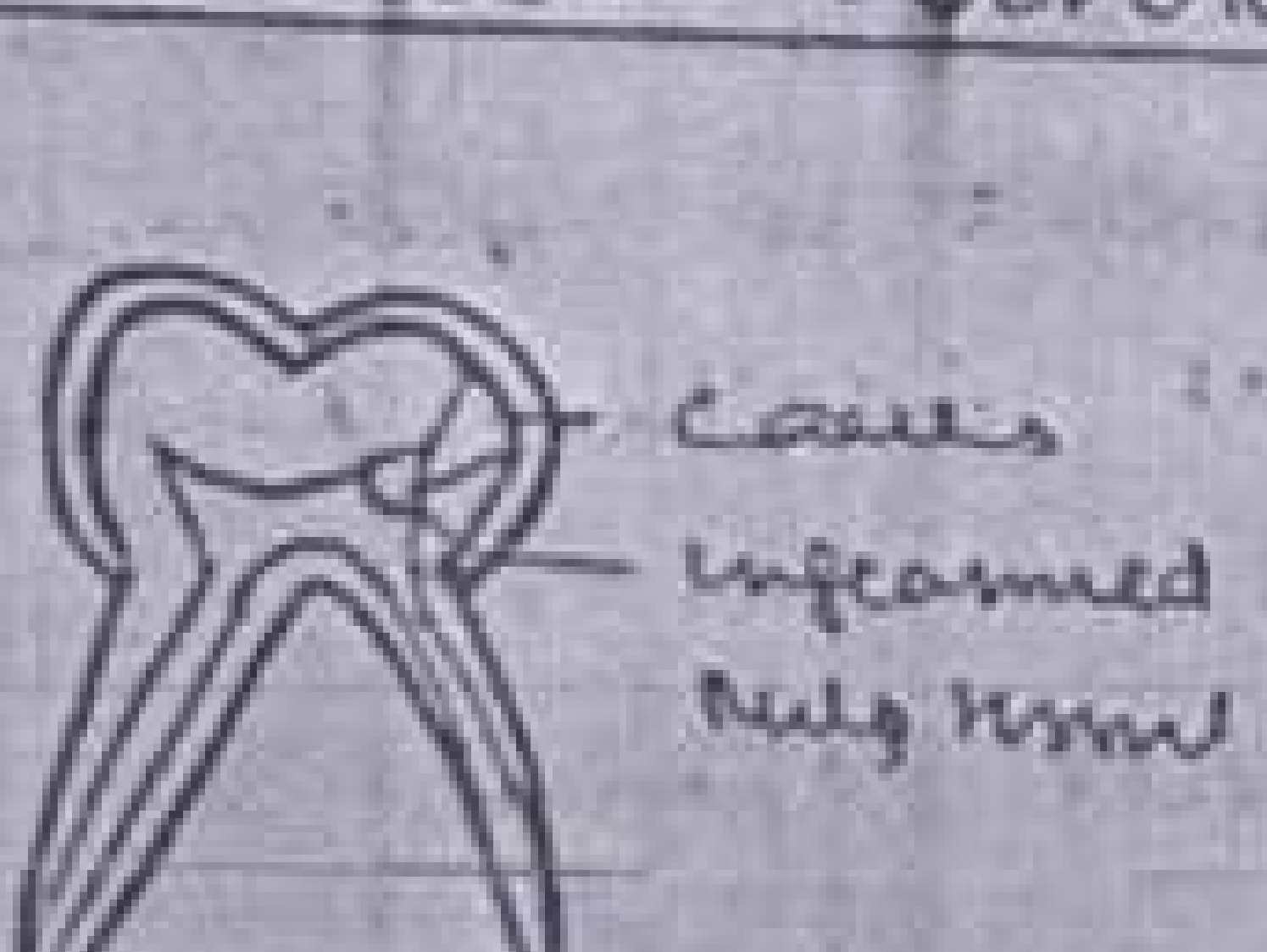


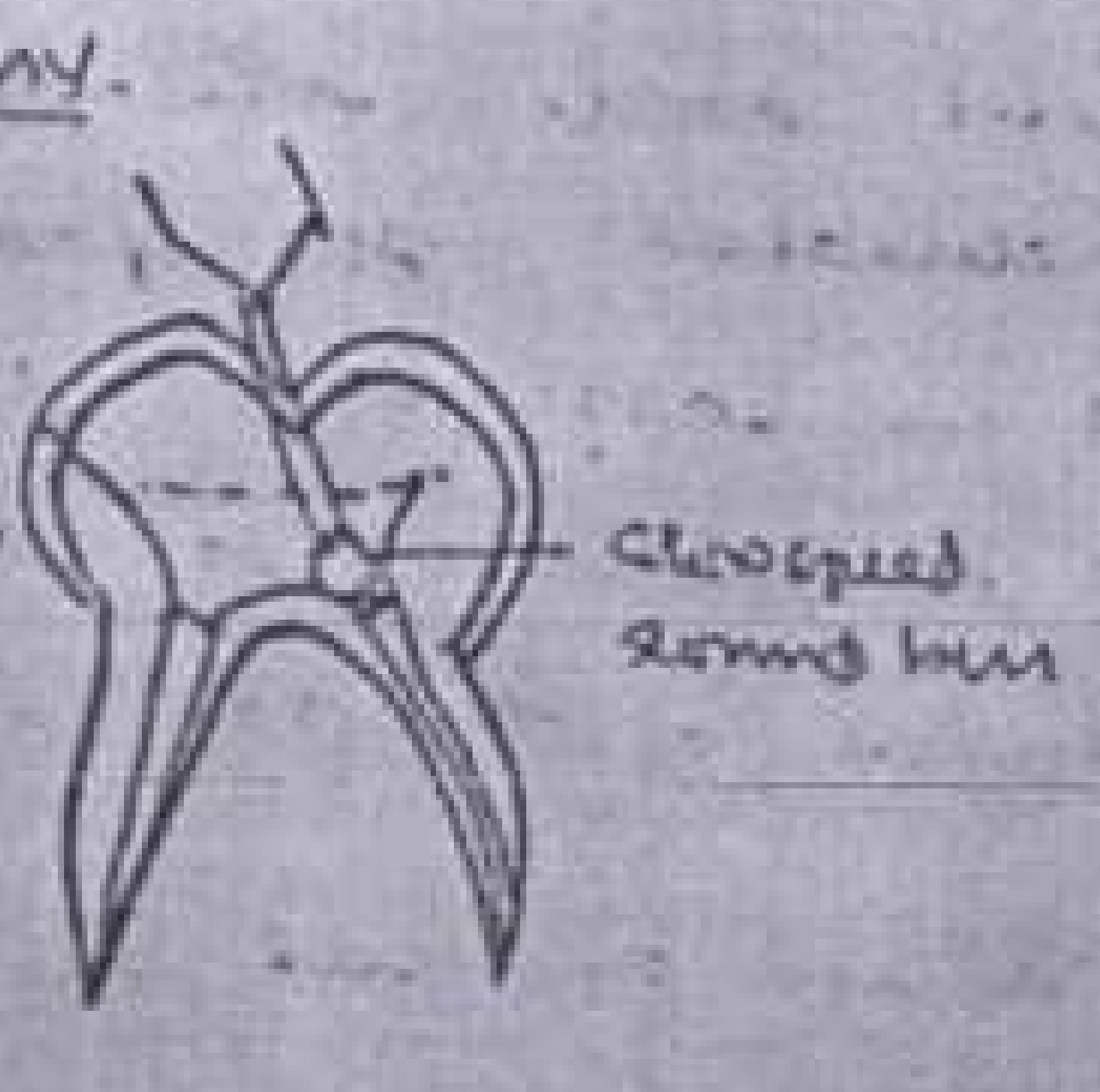
B) placement of $Ca(OH)_2$ over exposed pulp.



C) Tooth restored with final restoration

FORMOCRESOL PULPOTOMY.





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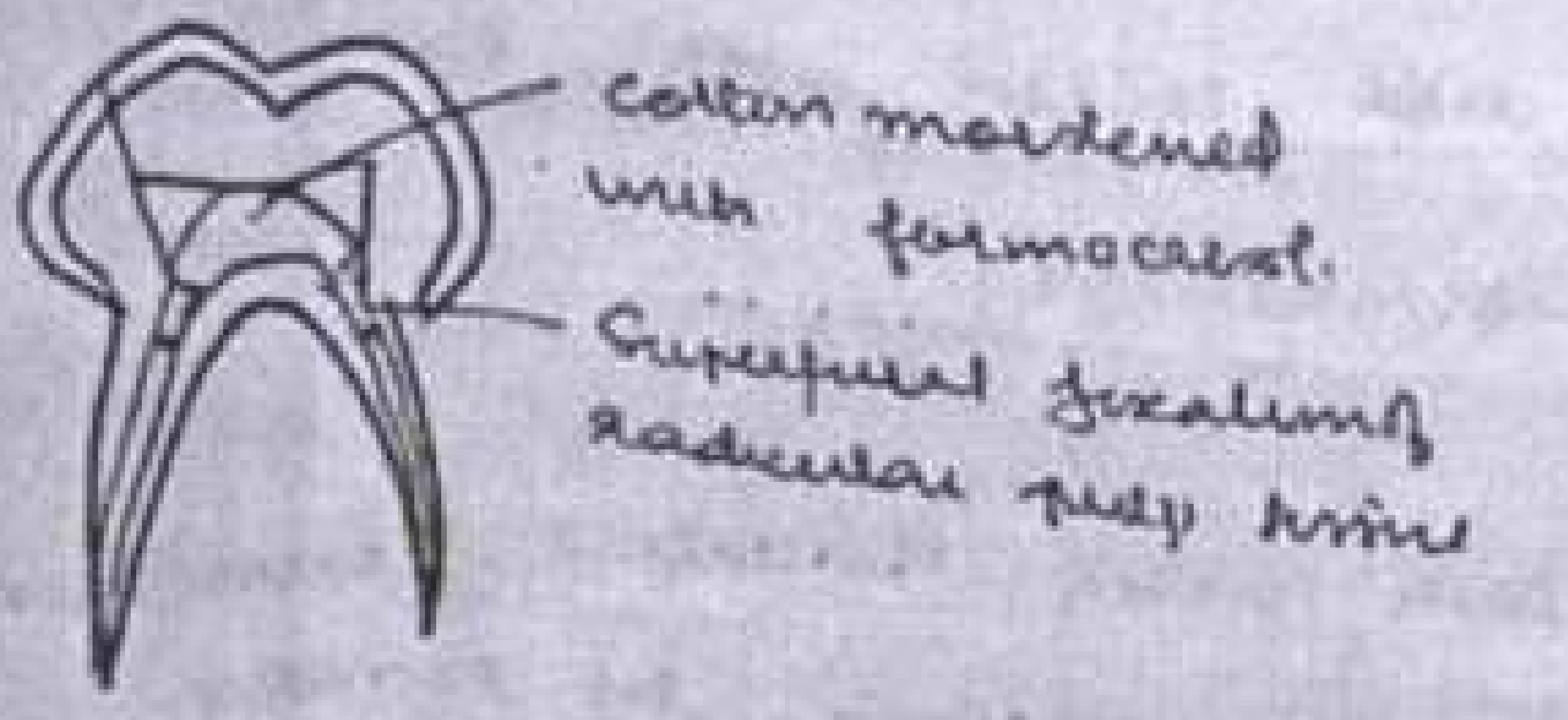
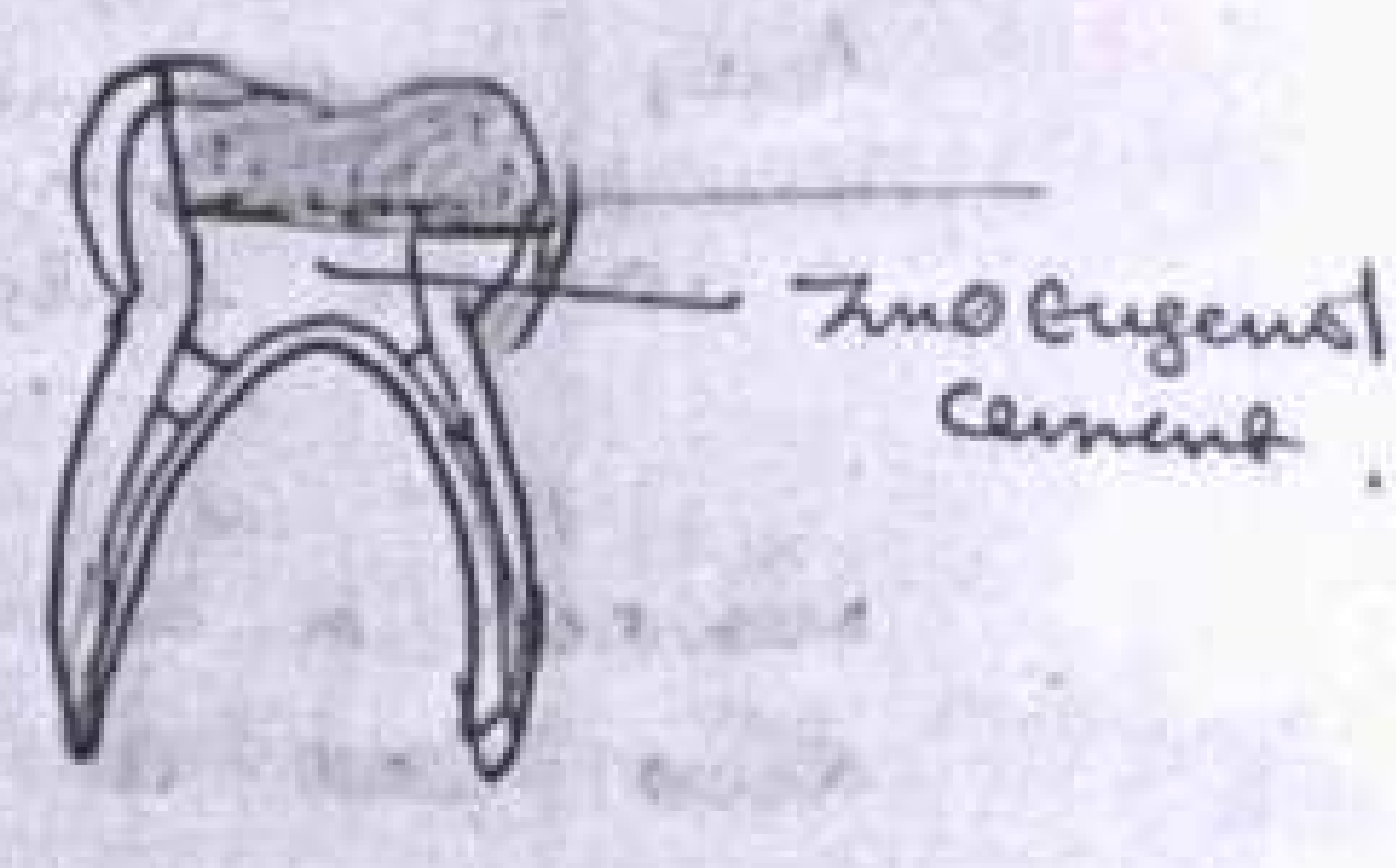

cotton moistened with formocresol.
Superficial fixation radicular pulp tissue



FORMOCRESOL PULPOTOMY

It was introduced in 1904 by Buckley. He found that equal parts of formalin and tricresol would react chemically with the products of pulp inflammation to form a non-infective compound of a harmless nature. Sweet popularised this technique in 1930. It is preferred in primary teeth due to higher (98%) clinical and radiographic success rate.

Buckley's formocresol consists of

- Formaldehyde 19%.
- Tricresol 35%.
- Glycerin 15%.
- Water 31%.

Technique / Clinical procedure:

Give local anesthesia and apply rubber dam isolate the tooth

↓

Remove infected dentin before entering pulp chamber

↓

Remove the coronal pulp to the canal orifices with the large round bur or spoon excavator.

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Apply gentle pressure with cotton pellets to arrest pulpal haemorrhage.

↓

Moisten a cotton pellet with Buckley's formocresol and blot it on sterile gauze to remove excess of the formocresol

↓

After the bleeding has been controlled, place formocresol cotton pellet in contact with pulp for 5 minutes.

↓

Place ZnO Eugenol paste and then final restoration

↓

Place stainless steel crown

Two visit pulpotomy.

It is used in cases of profuse and difficult to control bleeding. In this, paraformaldehyde paste is used which consist of

- paraformaldehyde - 1g.
- lignocaine - 0.06g.
- Carmine - 10g
- propylene glycol. - 0.5 ml
- Carbowax - 1.3g.

Technique.

The procedure is same as for one visit formocresol pulpotomy till hemorrhage control except for the following changes:

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Apply gentle pressure with cotton pellets to arrest pulpal haemorrhage.

↓

Moisten a cotton pellet with Buckley's formocresol and blot it on sterile gauze to remove excess of the formocresol

↓

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Technique.

The procedure is same as for one visit formocresol pulpotomy till hemorrhage control except for the following changes :

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Reference:

→ Grossmans Endodontic Practice – Gopikrishna (14th Edition)

→ Nisha Garg – Textbook of Endodontics.

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DEPARTMENT OF CONSERVATIVE DENTISTRY AND ENDODONTICS

LESSON PLAN	
LESSON TITLE	ACCESS CAVITY PREPARATION
TEACHER	DR CHANDINI RAVEENDRAN
BATCH	FINAL YEAR PART 2
DATE	03/01/2024

Duration-1 hour

Objectives:

- Understand the importance of access cavity preparation in restorative dentistry
- Learn the steps involved in accessing a cavity
- Practice accessing a cavity on a model or simulated tooth

Materials:

- Dental handpieces (high-speed and low-speed)
- Burs (round, fissure, and pear-shaped)
- Dental mirror and explorer
- Model or simulated tooth with a cavity

Lesson Plan:

I. Introduction (5 minutes)

- Review the importance of access cavity preparation in restorative dentistry
- Discuss the objectives of the lesson

II. Step-by-Step Access Cavity Preparation (20 minutes)

1. Overview of the cavity (5 minutes)

- Show the location and extent of the cavity
- Discuss the need for access

2. Removing enamel and dentin (10 minutes)

- Demonstrate how to use a high-speed handpiece and appropriate burs to remove enamel and dentin
- Emphasize the importance of proper bur control and safety

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3. Gaining access to the pulp chamber (5 minutes)

- Show how to use a low-speed handpiece and a round bur to access the pulp chamber

4. Exploring the cavity (5 minutes)

- Demonstrate how to use a dental mirror and explorer to visualize and explore the cavity

III. Practice Accessing a Cavity (30 minutes)

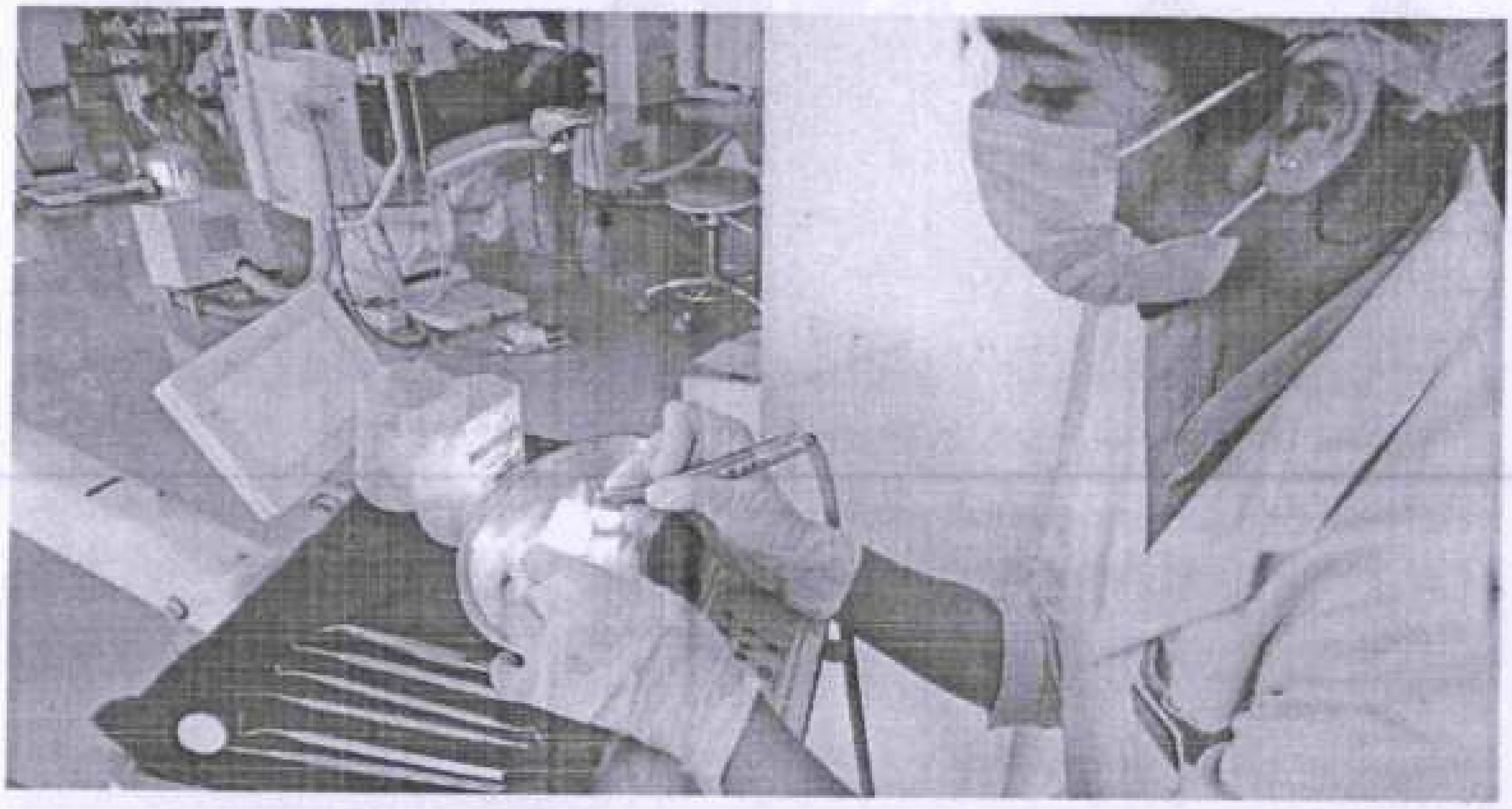
- Have students practice accessing a cavity on a model or simulated tooth
- Circulate and provide guidance and feedback

IV. Conclusion (5 minutes)

- Review the key steps in accessing a cavity
- Emphasize the importance of proper access cavity preparation in restorative dentistry

Assessment:

- Observe students during the practice exercise and provide feedback
- Have students demonstrate their understanding of access cavity preparation through a written quiz or class discussion.



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REPORT ON TEST AND RETEST CONDUCTED FOR THE SLOW PERFORMERS

The Test and Retest Program was developed to support students who may require additional academic assistance, often categorized as "slow performers." The goal of this program is to assess the effectiveness of the intervention strategies implemented to support these students, track their progress, and analyze any significant changes in their academic performance.

Objectives of the Test and Retest Program

1. Assess performance Consistency
2. Track Progress and Improvement
3. Identify Effective Interventions
4. Provide Tailored Support

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1)

Mohammed Anas u
Roll no: 29
IVth year

Conservative dentistry and Endodontics

22
40

1 Access Cavity

Access cavity is defined as the prepration on the occlusal or lingual Surface to obtain a straight line access to the Canal for obturation

principles to be followed during access Cavity prepration

1) Outline form
2) Convenience form
3) Debriding
4) Irrigation
5) obturation

access Cavity prepration for upper central incisor

→ Depth of the ~~roots~~ canal and pulpchamber is assessed by placing bur and hand piece against radiograph

Cavity prepration is done through ~~oo~~ ~~occlusal~~ or lingual Surface.

at the Cingulum

Gingival Margin can retract and incisal margin can abrade which can alter the Correct position

Cingulum is always almost in the Correct position for the Cavity prepration

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CALICUT

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Mohammed Anas U
Roll no: 27
Part-2 regular

Conservative and Endodontics

2 Contents

35/70

⇒ Goals of isolation
⇒ Methods used for moisture Control
⇒ Rubberdam

Goals of isolation

⇒ betteraccess to the operating field
⇒ Better visibility to the area of operation
⇒ prevent Contamination of the operating area
⇒ Moisture Control
⇒ To maintain the field dry
⇒ prevent Saliva Contamination
⇒ Better focus to the Area of operation.
⇒ for retraction of the adjacent structure
⇒ prevent injuries to adjacent structures
⇒ prevent Contamination of the restoration materials.

-1½

Methods used for moisture Control
Mechanical
⇒ cotton rolls
⇒ Rubber dam
⇒ High volume Suction tubes
⇒ low volume Suction tubes

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MUSFIRA.M.K
Rollno. - 30

Conservative & endodontics.

1) Access cavity

25/70

Defini Contents

1) Definition
2) principles
3) Access cavity preparation for upper central incisor.

1) Definition
Access cavity is defined as the coronal endodontic preparation which enables the accesses the unobstructed access to the canal orifices, offers straight line, access to the apical foramen, control over the instrumentation, space for the accomodation of the filling material.

2) Principles
a) outline form.
b) Convinience form.
c) Removal of the caries tooth, discoloured tooth, bacteria, Debris.
d) Toilet for the access cavity.

a) outline form.

→ It is the coronal external to extension of the internal structure of the cavity. ~~which makes~~ refers an outline form form access cavity in the coronal portion of the tooth.

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MUSFIRA.H.K
Roll no.-28

Conservative and Endodontics

3) Short essay

-34½-
70

Hypersensitivity

Contents

Dentinal – Definition.
- Etiology.
- Management.
- Theories

1 Definition:- Dentin hypersensitivity is defined as sharp shooting pain occurs due to the exposure of dentinal tubules and stimulus by the chemical, thermal or evaporative and it is not related to the any pulpal or other dental defects likes pulpal or periapical pathology.

Etiology – Wasting disease – E
Gingival recession – E

- → Deep dental caries
- → non-carious like, attrition, abrasion, erosion.
- → root perforation.
- → periodontal surgery.
- → errors takes place during endodontic surgery.
- 2 → periodontal pocket.
- → mobility of the tooth.
- → Defective cavity preparation.
- → Exposure of the dentinal tubules by sodium hypochlorite.
- Contamination of dentinal tubules by the saliva
- → [illegible]

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Mukkam

SREELAKSHMI.P.S
Part 1 Regular.
Roll No: 48

19/10/23

'Conservative Dentistry & Endodontics'

1. Access Cavity is defined as an Endodontic preparation where the unobstructed canal orifices, a straight line access to the apical foramen, Complete control of instrumentation and accomadates obturation of Techniques.

22/70

5

Principles

- Outline form
- Convience form
- Removal of infected dentin
- Toilet of Cavity

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22/5/24

SREELAKSHMI . P.S
Final year Part II
Roll. No : 46

CONS & ENDO

35/70

CONTENTS

1.
- Introduction
- classification of root canal irrigants
- Role of irrigant
- chlorhexidine
- Conclusion.

Introduction

Irrigation is done to clean the root canal. debridement is the main aim

Irrigant is the only way to clean the areas of tooth that is untouched by instruments such as fins, anastomosis etc.

Ideal property of an irrigant

- It should be bactericidal
- It should be non irritant
- dissolve the Necrotic pulp
- dissolve the biofilm
- It should be easily available
- affordable.
- stable

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Conservative & endodontics.
First internal.

Hiba Rahman
Roll no: 20
Part 1

[illegible]

1) Access cavity

Definition

Access cavity is the coronal preparation of teeth to obtain control over instrumentation, straight access to root canal, ~~for~~ applicable for obturation technique

objective of access cavity preparation is to

access cavity preparation for upper central incisor

- Cavity is prepared through the cingual or incisal aspect.
- the ~~dr~~ small round bur is used to preparation
- once the enamel is penetrated, the bur is placed 45° to the long axis and penetrated until a drop in is obtained and is, is the pulp chamber.
- after that cingual surface is removed in a direction from inward to outward.
- using a ~~[illegible]~~ x-crater the lingual shoulder is removed
- lingual ~~should~~ shoulder is the prominence of dentin formed after removal of cingual wall.
- all other projection or calcification - pulp stones are removed and there will be a straight accem to the ~~root~~ canal.

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Conservative and
endodontics

Hiba Rahman k.p
Final part II
Roll no: 19

$31\frac{1}{2}$ Pl.
/70

3) Hypersensitivity

Hypersensitivity is defined as sharp, short pain caused due to exposure of dentin when affected by a stimuli such as thermal, chemical, osmotic or cold, which cannot be ascribed of any other ~~p~~ pathology

32/70

etiology

- primary cause of dentin hypersensitivity is due to expose of dentinal tubules
  - most commonly caused by periodontal lesions
  - due to caries
- gingival recession.
  - due to gingival recession, the dentin get exposed in the cervical or root areas, and when stimuli occur it & excites the nerves in the dentinal tubules which causes pain and sensitivity
- may be also due to plaque accumulation, ~~[illegible]~~ exposure to acids, tooth brushing techniques
- abrasion, abfraction, dental caries. it can also lead to dentin hypersensitivity

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DEPARTMENT OF PERIODONTOLOGY

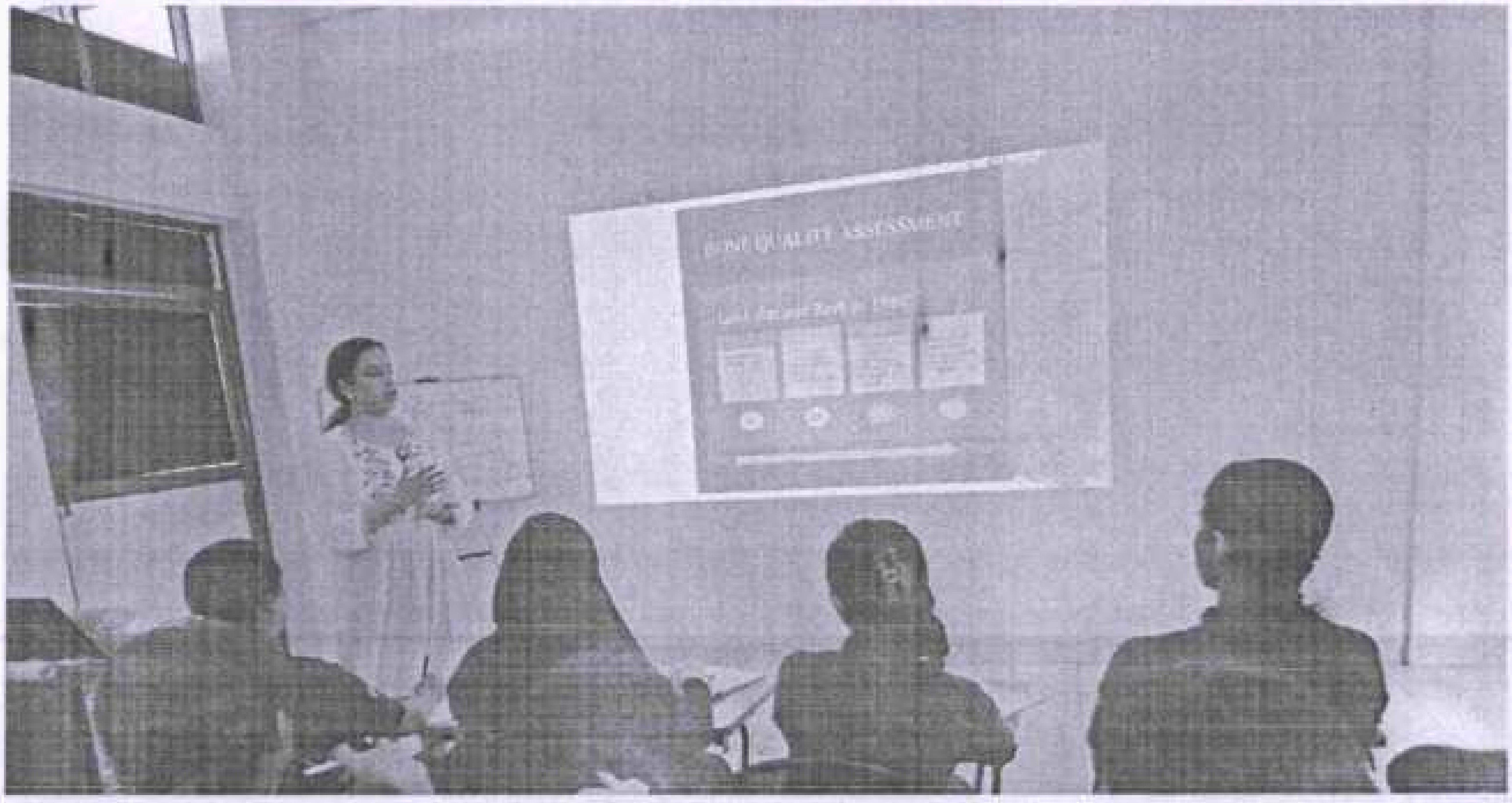
DETAILS OF SPECIAL PROGRAMS FOR SLOW PERFORMERS

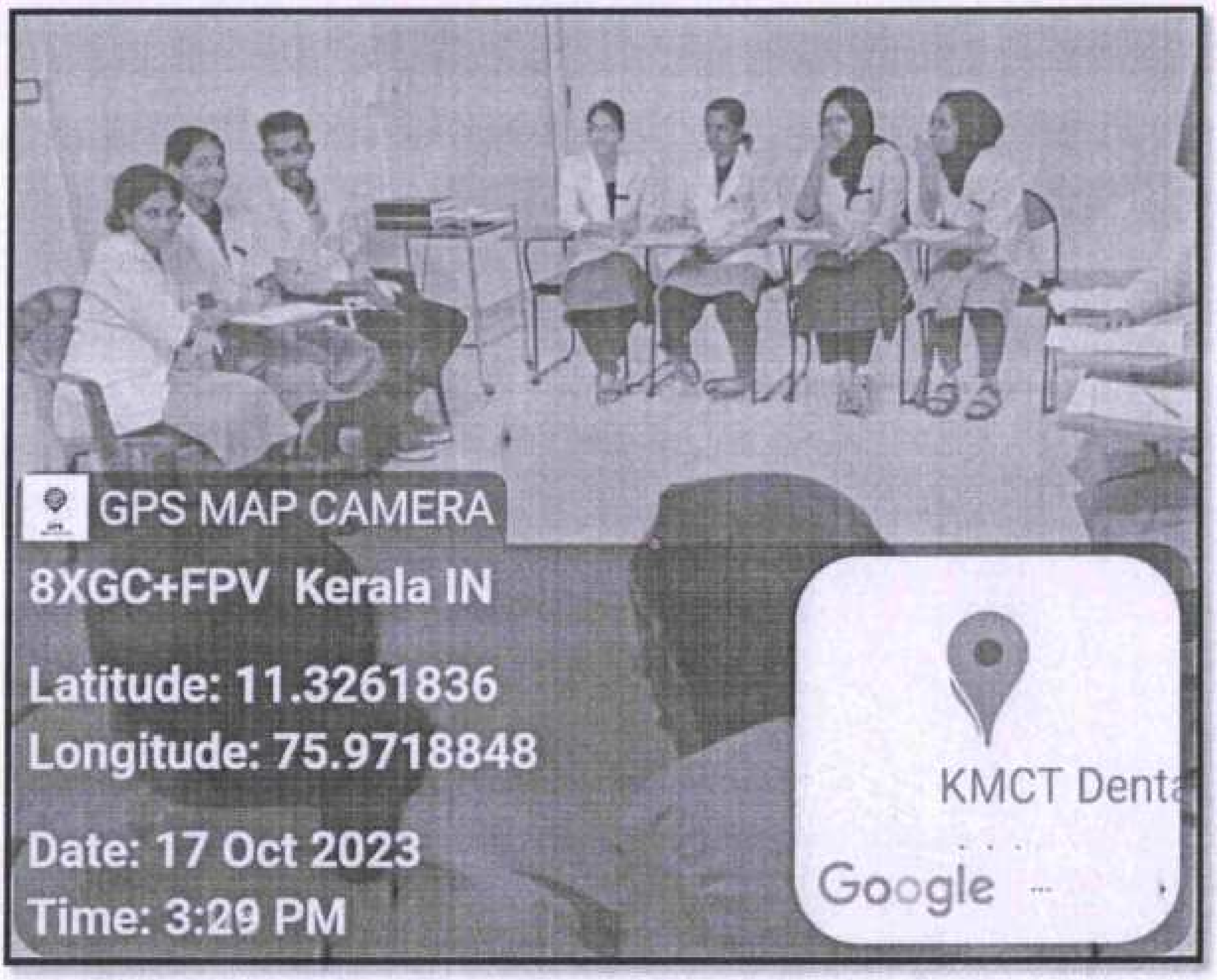
Continuous Monitoring and Individual Attention by Mentors:

- Each student receives personalized attention from assigned mentors who regularly monitor their academic progress, identify areas of improvement, and provide guidance and motivation.

Special Classes with Subject Experts:

- Additional classes are conducted by the subject experts for slow learners which prioritize concept clearance by attention and weightage given to doubts raised by the students on certain topics. These sessions provide handling of challenging topics as well.



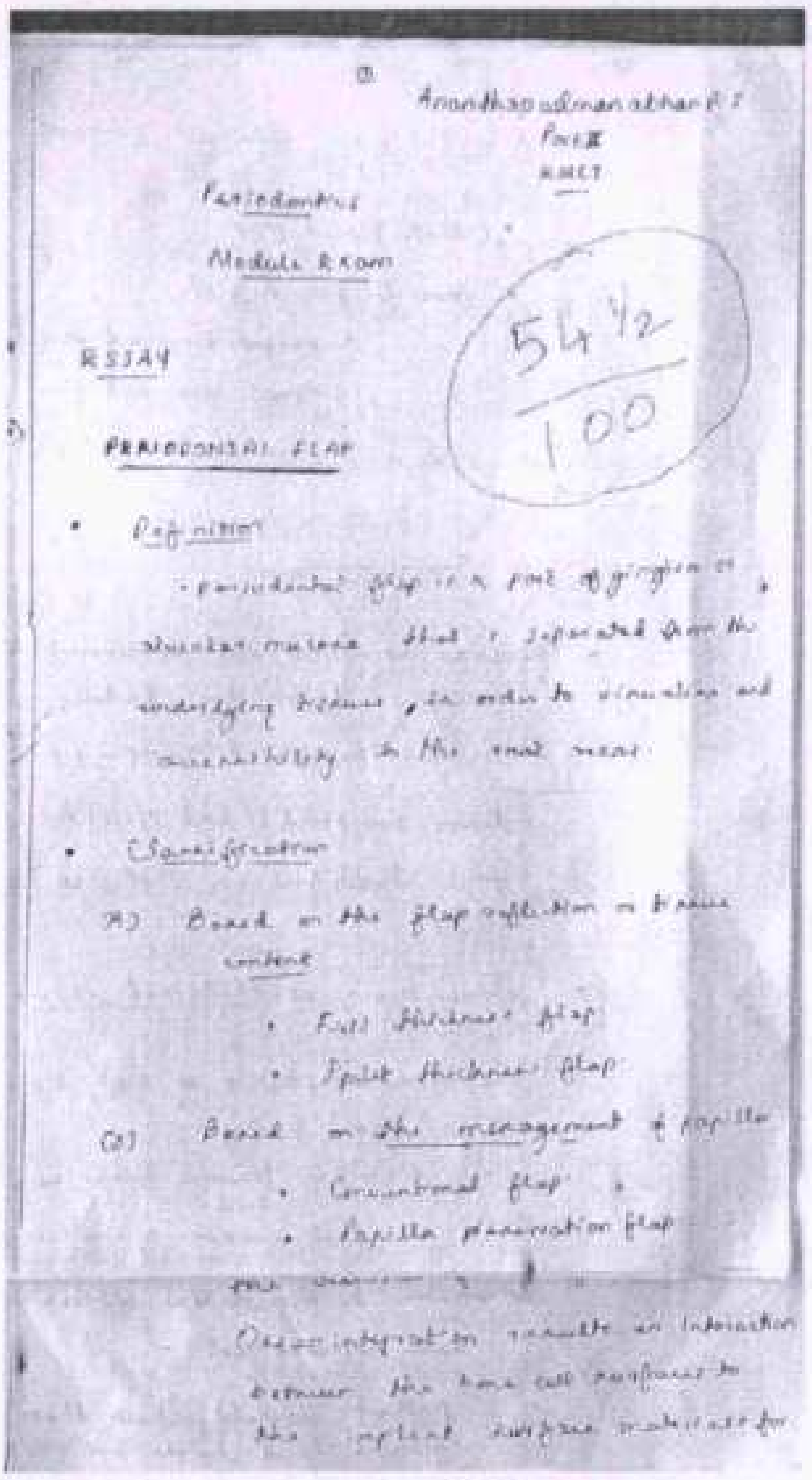


Counseling for Students and Parents with Psychologists:

- We have been instrumental in conducting regular therapy sessions for both students and parents to help them overcome their concerns academically by alleviating study related stress and thereby enhancing their mental well-being in a tangible way.

Periodical Assessments with Class Tests and Evaluation:

- Structured class tests and assessments are conducted to track progress, point out weak areas, and provide timely feedback. Enabling students to appraise their foibles and diligence.



①

Ananthapadmanabhan P T
Part II
KMCT

Periodontics

Module Exam

54½
100

ESSAY

1) PERIODONTAL FLAP

- Definition

  - Periodontal flap is a part of gingiva or alveolar mucosa that is separated from the underlying tissue, in order to visualise and accessibility to the root area

- Classification

A) Based on the flap reflection or tissue content

- Full thickness flap
- Split thickness flap

(2) Based on the management of papilla

- Conventional flap
- Papilla preservation flap

[illegible]

Osseointegration results in interaction between the bone cell surfaces to the implant surface materials for

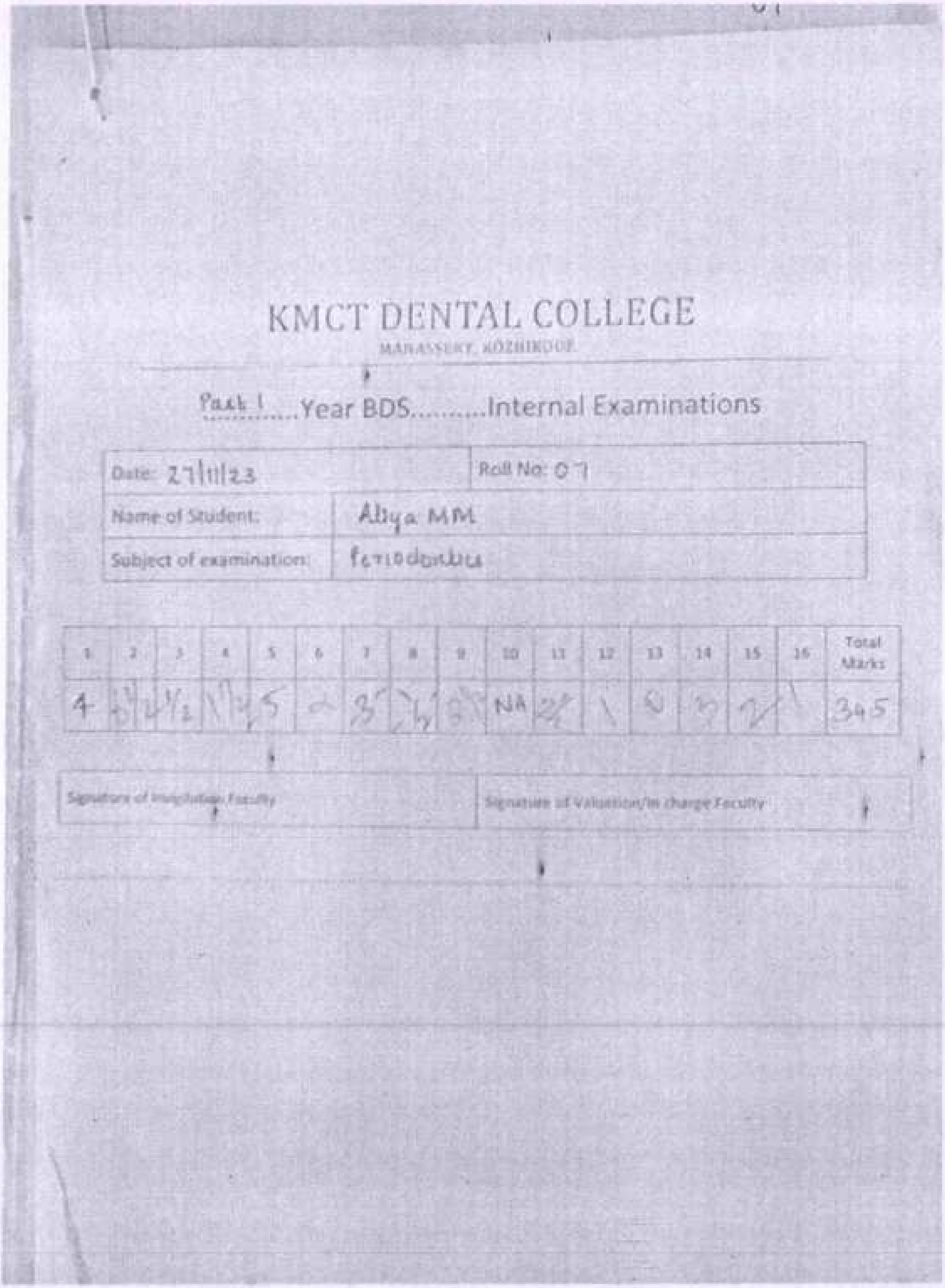
- **Rapid Revision and Revision Tests Before University Examinations**:
  Special revision sessions are organized before exams to quickly recap the syllabus, focusing on key topics Revision tests simulate exam conditions, aiding students in practicing time management.

TOPICS FOR REVISION TESTS

Encouragement of Collaborative Study with Advanced Learners:

- Cluster study groups are formed by procuring the help from brisk learners. We make sure we create an acceptable learning abode, where the brisk learners aid in the guidance of their contemporaries in comprehending the difficult topics

St. No:	TOPIC
1	Gingiva
2	Cementum
3	Alveolar bone
4	PDL
5	Microbiology of plaque
6 ✓	Calculus
7	Host microbial interaction
8✓	Host modulation
9	Perio medicine &influence of systemic diseases on the periodontium
10	Defense mechanism of gingiva
11	Desquamative gingivitis
12	Periodontal pocket
13✓	TFO & Occlusal evaluation and therapy
14✓	Chronic periodontitis
15✓	Ag periodontitis & treatment of aggressive and atypical forms of periodontitis



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MANASSERY, KOZHIKODE

Part I ..Year BDS..........Internal Examinations

Date: 27/11/23	Roll No: 07
Name of Student:	Aliya MM
Subject of examination:	Periodontics

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total Marks
4	[illegible]	2½	1½	5	2	3	[illegible]	[illegible]	NA	2½	1	0	3	2	1	345

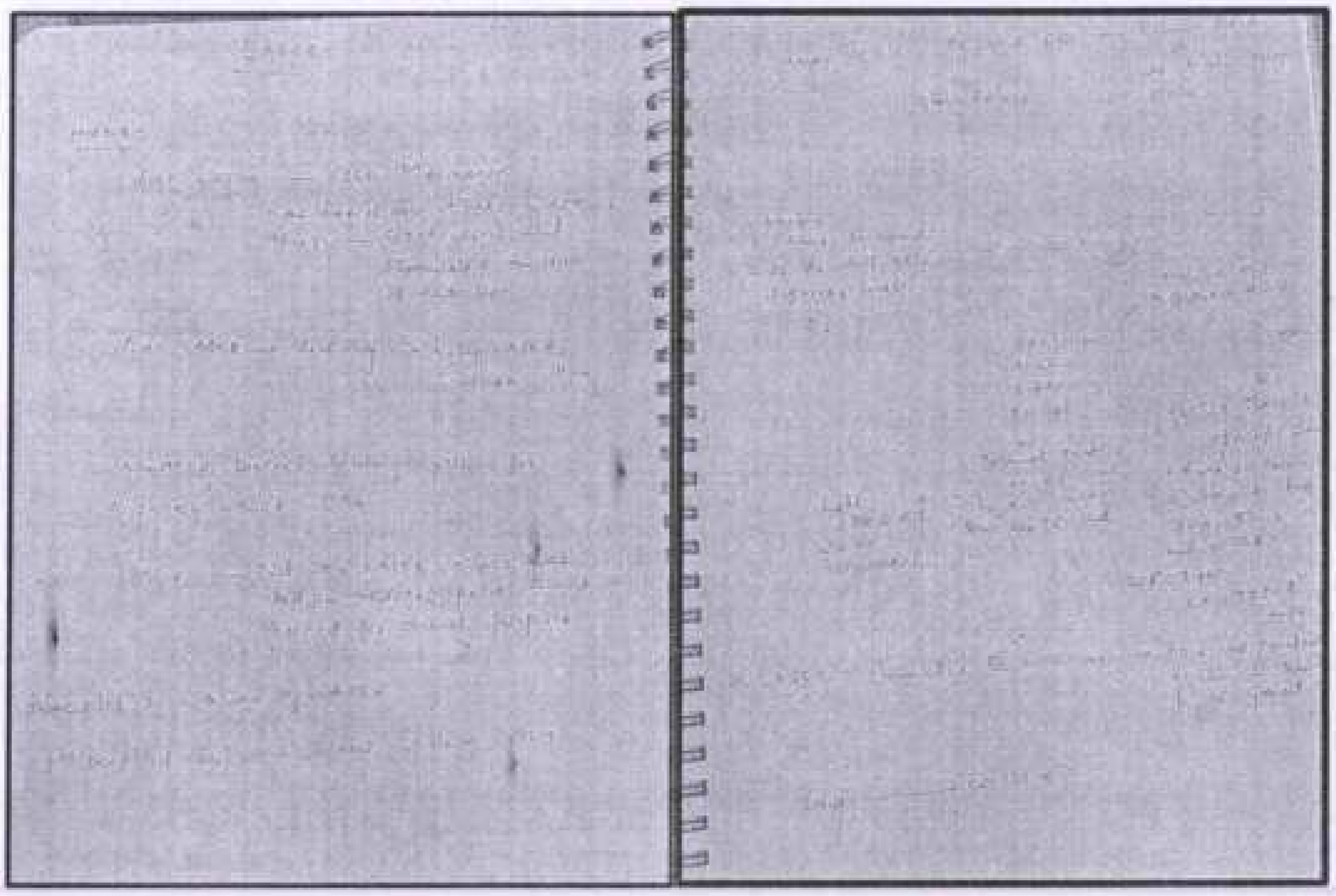
Signature of Invigilation Faculty	Signature of Valuation/In charge Faculty

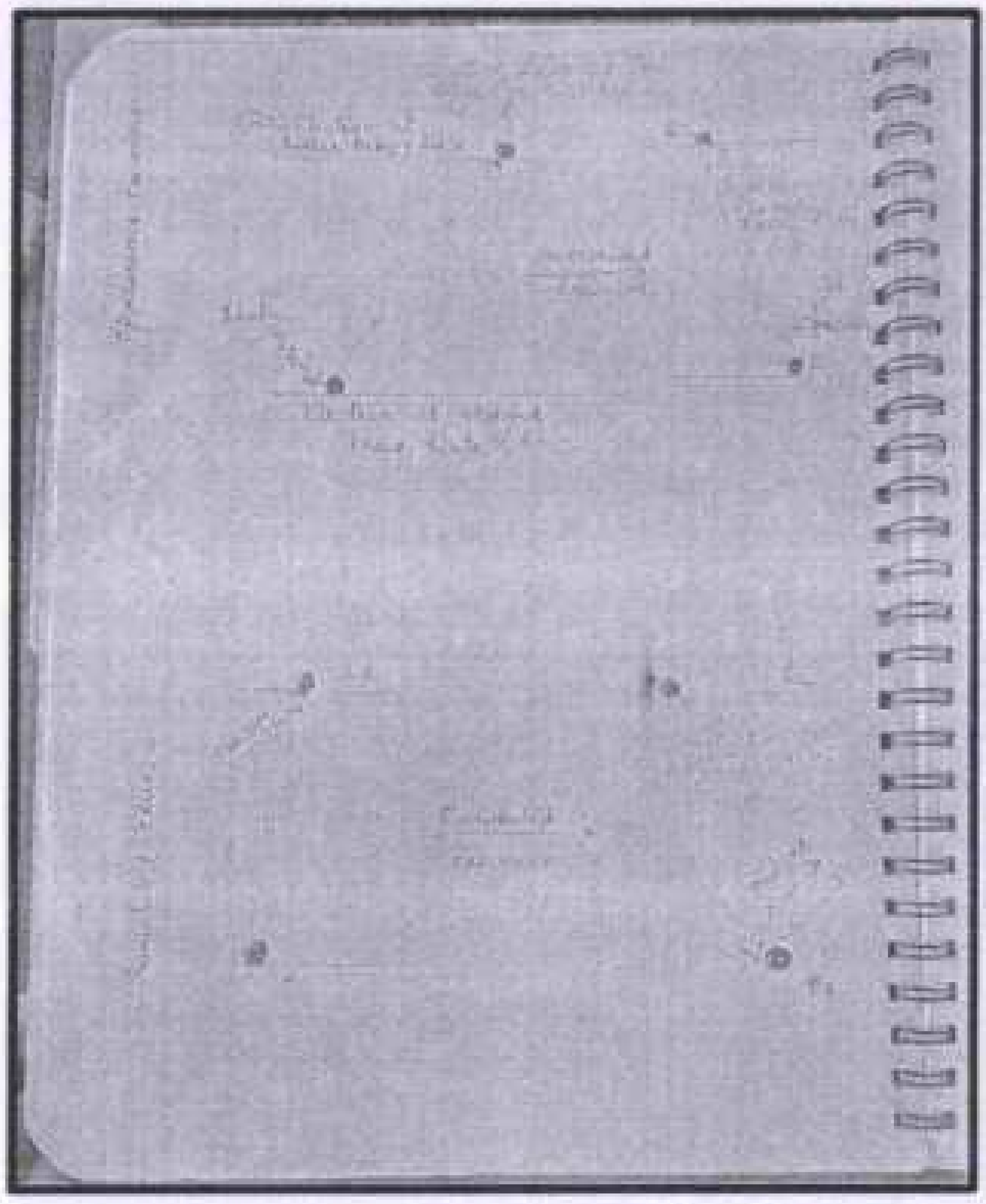
Encouraging Reading Books with Simple Language:

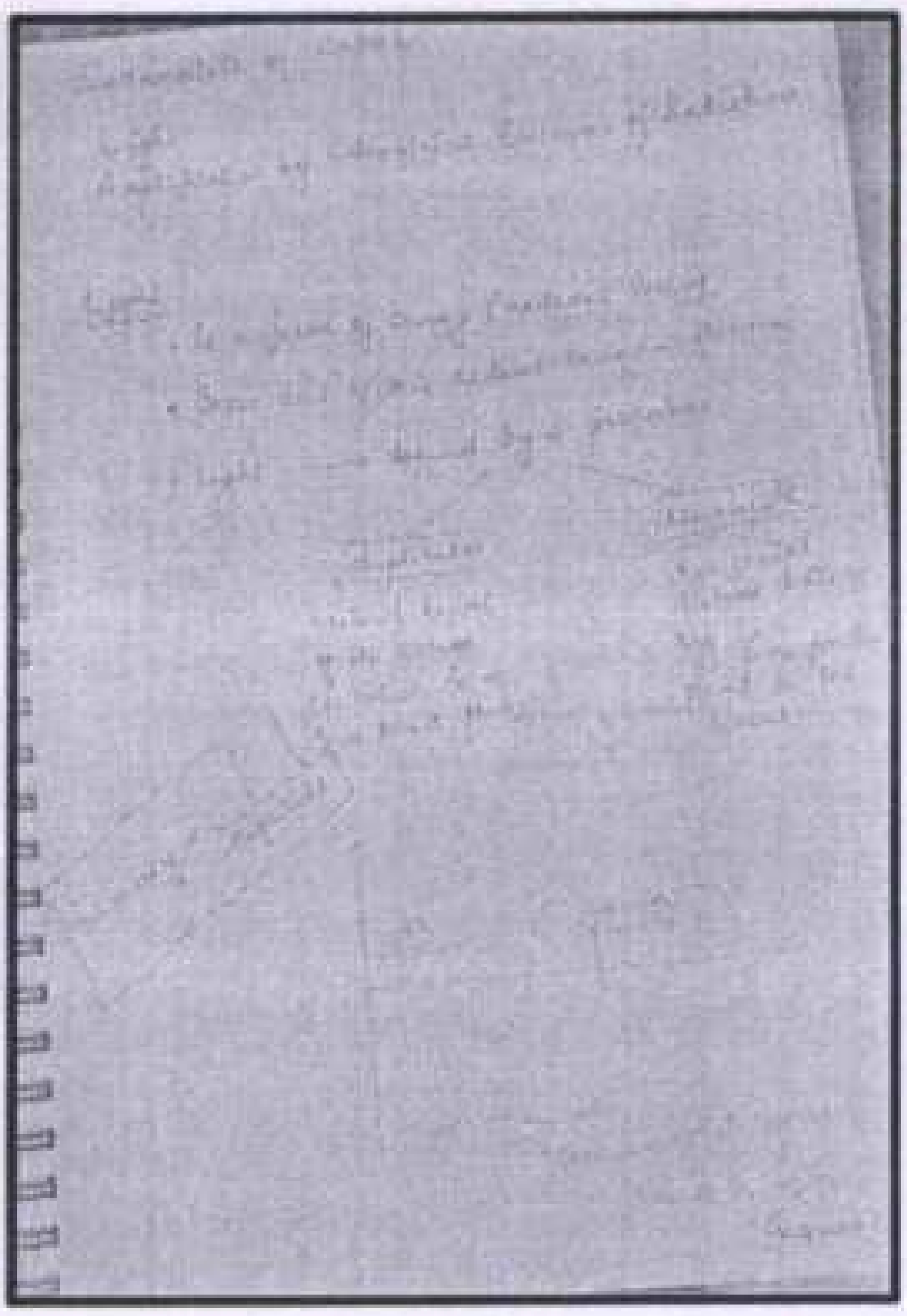
- Improving the perception and knowledge about complex topics is carried out by encouraging students to read auxiliary textbooks which is easier for their discernment.

Provision of Special Notes:

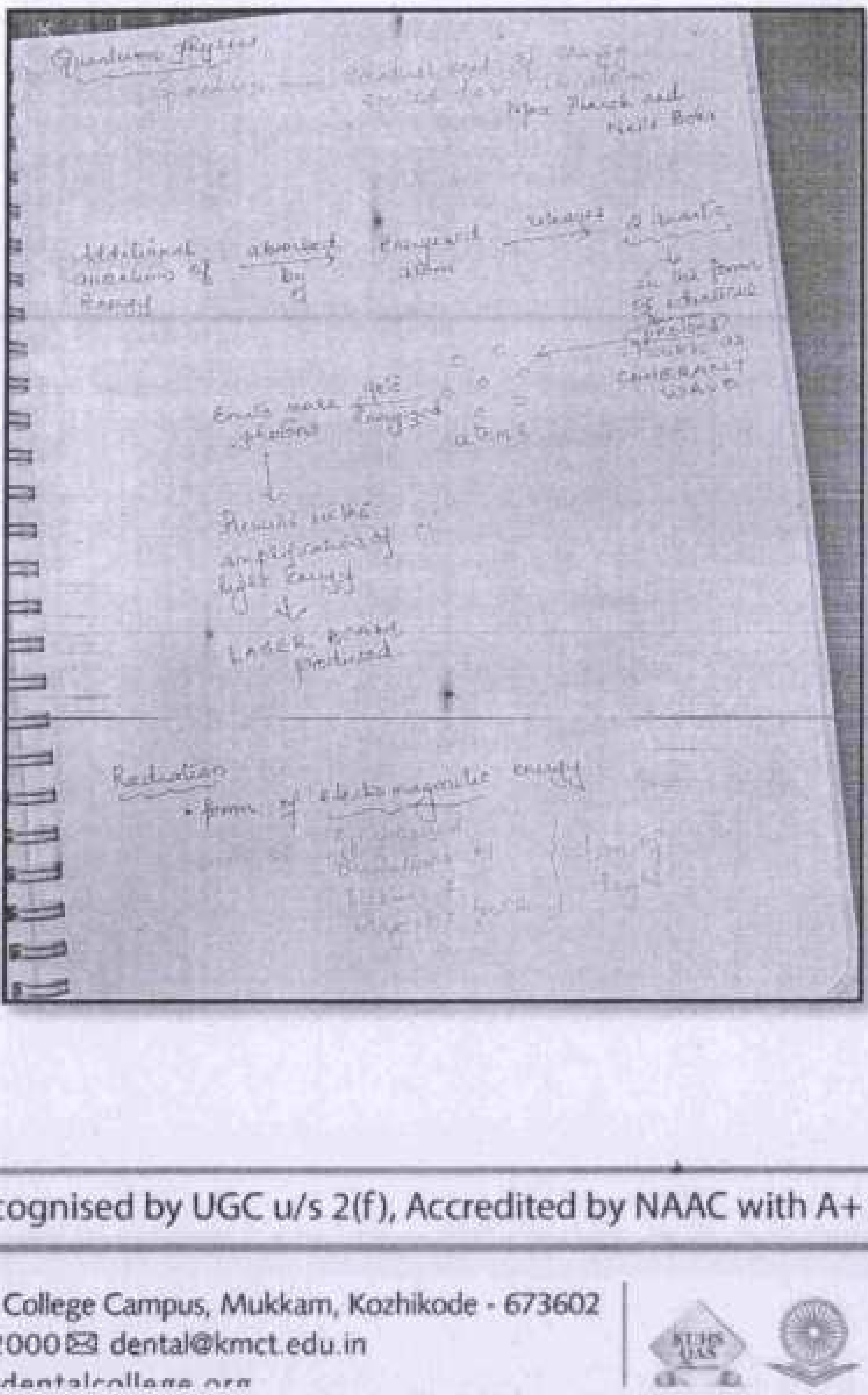
- Proficient study materials, with simplified notes and summaries, are provided to slow performers helping them in skilled learning and mastering how to reciprocate the same in exams.







Light Amplification by Stimulated Emission of Radiation



Quantum Physics

Max Planck and Niels Bohr

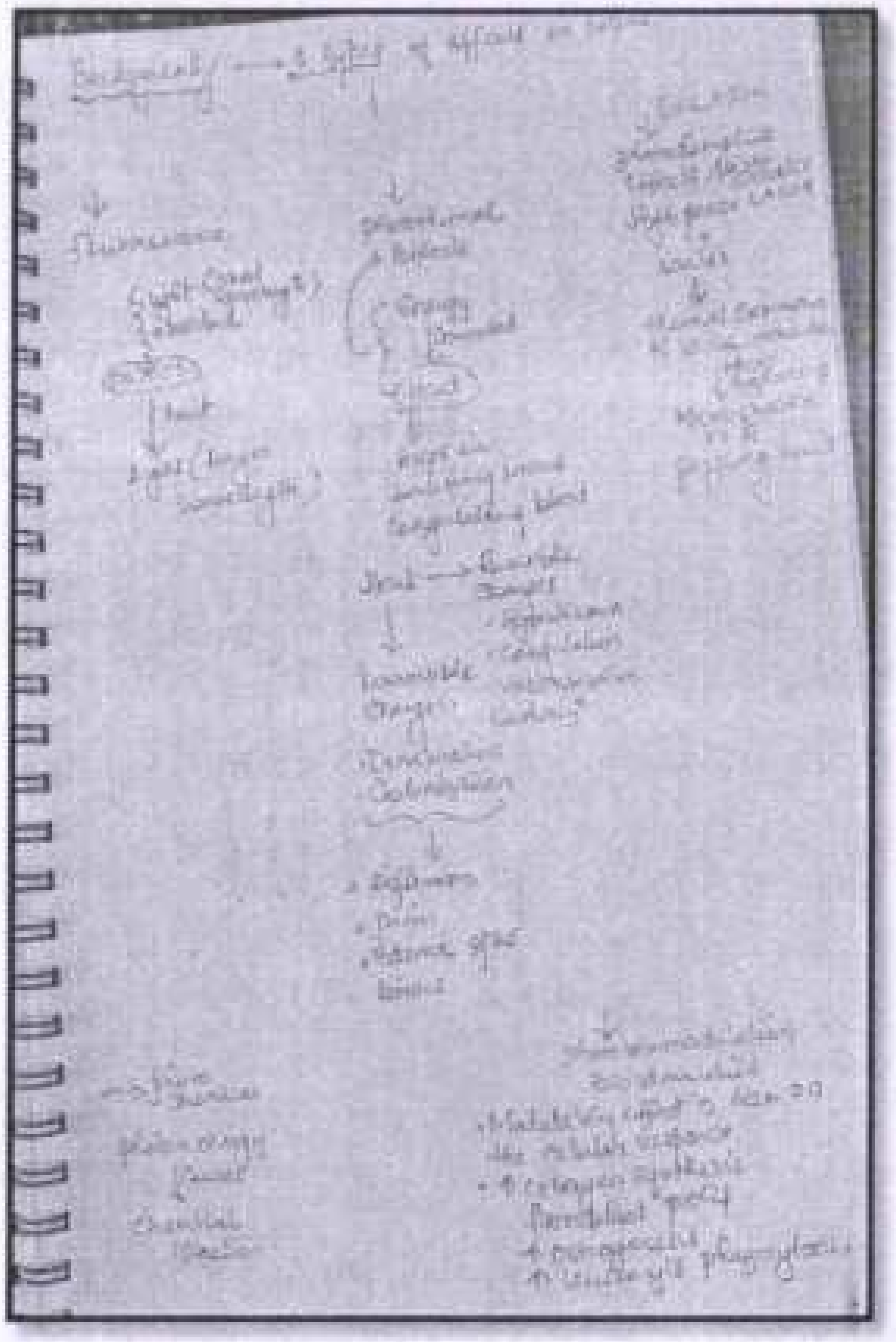
Additional quantum of energy → absorbed by → Energized atom → releases → Quanta
in the form of identical photons or COHERENT WAVE

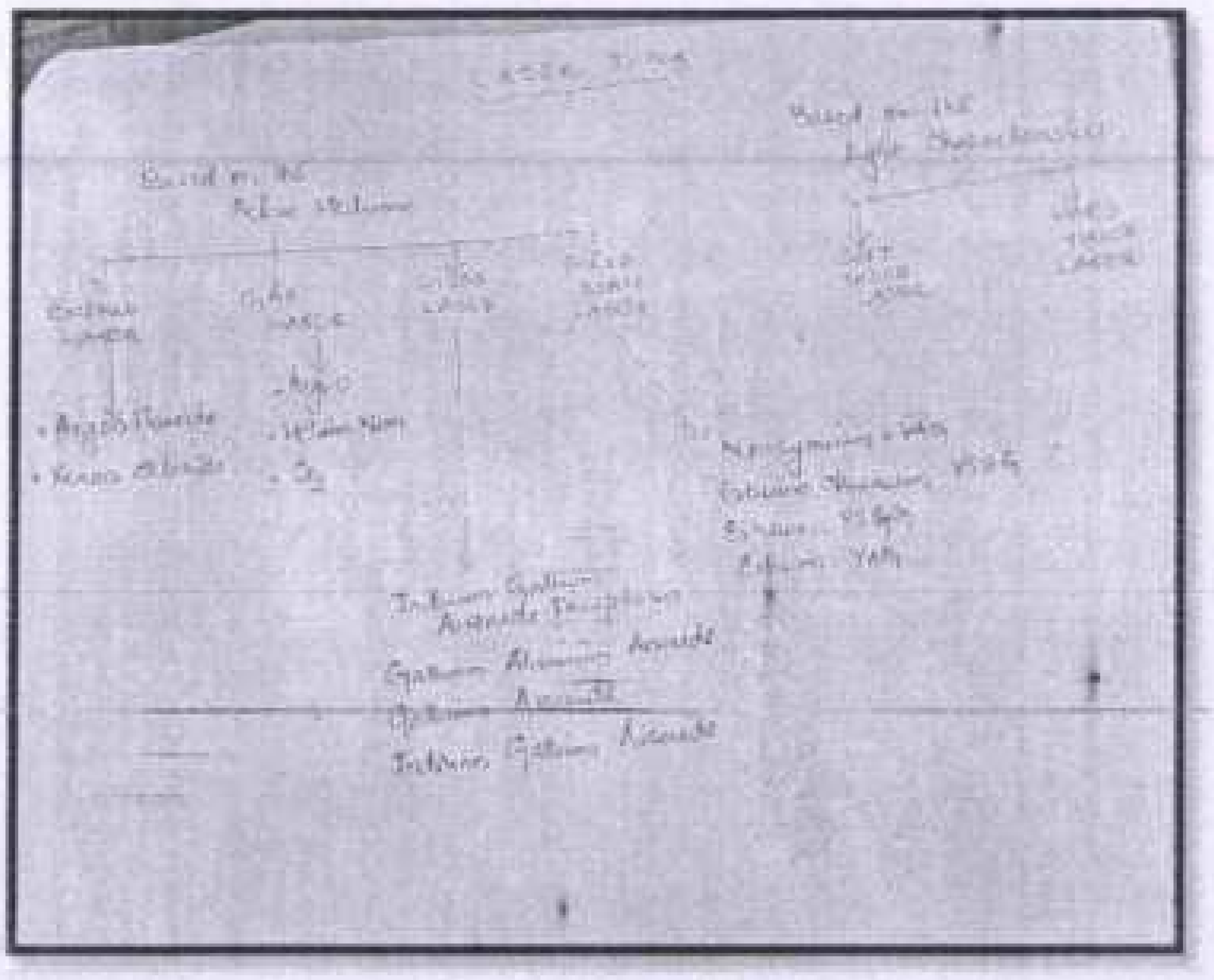
Emits more photons [illegible] energized atoms

Results in the amplification of light energy

LASER beam produced

Radiation
- form of electromagnetic energy





Customized Learning Plans:

- Tailored learning plans are designed to cater to specific learning styles, pace, and requirements, ensuring a more personalized learning experience.

LESSON PLAN					
Lesson Title:	Chronic Periodontitis		**Lesson No.** 32	**Date:**	
Teacher	Dr. Anish Varkey	**Subject**	Periodontology	**Class**	Part I (R)

Goal: To make students aware of etiology, clinical features, types of progression, radiographic findings of Chronic periodontitis

Learning outcome/ objectives: At the end of the class the student should be able to

1. Understand the aetiology, diagnosis clinical features, radiographic findings and treatment/
2. Understand the difference in systemic associated periodontitis and due local factors.
3. Answer the question in theory exam and viva

Prerequisite Concepts and Skills: The student is required to know basic defence body mechanisms.

Materials and Resources:

Teacher	**Students**
• Custom prepared power point of the topic • Black board	Note book

Lesson Activities:

Teacher Activities	Student Activities	Time
- Introduction (anticipatory set): - Etiology - Body: Detailed description about chronic periodontitis, diagnosis and their treatment procedures. - Closure: Recent concepts - Students will be encouraged to answer the puzzles and clinical photographs to assess that learning objective is achieved and show published articles.	- Listen to the class - Make notes and write down important points - Answer the questions, recent articles and clinical photographs.	1 hour

Strategies: Students are made sit comfortably. All students should have a proper view of power point display and black board. Question and contributions will be encouraged from the students.

Assessment and evaluation: At the end of the class students will be asked to answer the questions and evaluate few clinical photographs.

Extensions: The students will be able to link this topic with number of systemic /medical conditions and sequences and their treatment approach.

Differential instruction: Differentially able and gifted students will be challenged with the relevant questions and clinical puzzles.

Reflections: Feedback from students will be obtained about the class.

Signature of HOD

Head of Department
Dept. of Periodontics
K M C T Dental college, Calicut

Signature of HOD

Department of Periodontics

DEPARTMENT OF PROSTHODONTICS ,CROWN BRIDGE AND IMPLANTOLOGY

DETAILS OF SPECIAL PROGRAMS FOR FAST LEARNERS

Continuous Monitoring and Individual Attention by Mentors: Each student receives personalized attention from assigned mentors who regularly monitor their academic progress, identify areas of improvement, and provide guidance and motivation.

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- **Special Classes with Subject Experts**: Slow performers attend additional classes conducted by subject experts. These sessions focus on clarifying concepts, addressing doubts, and providing extra guidance on challenging topics.

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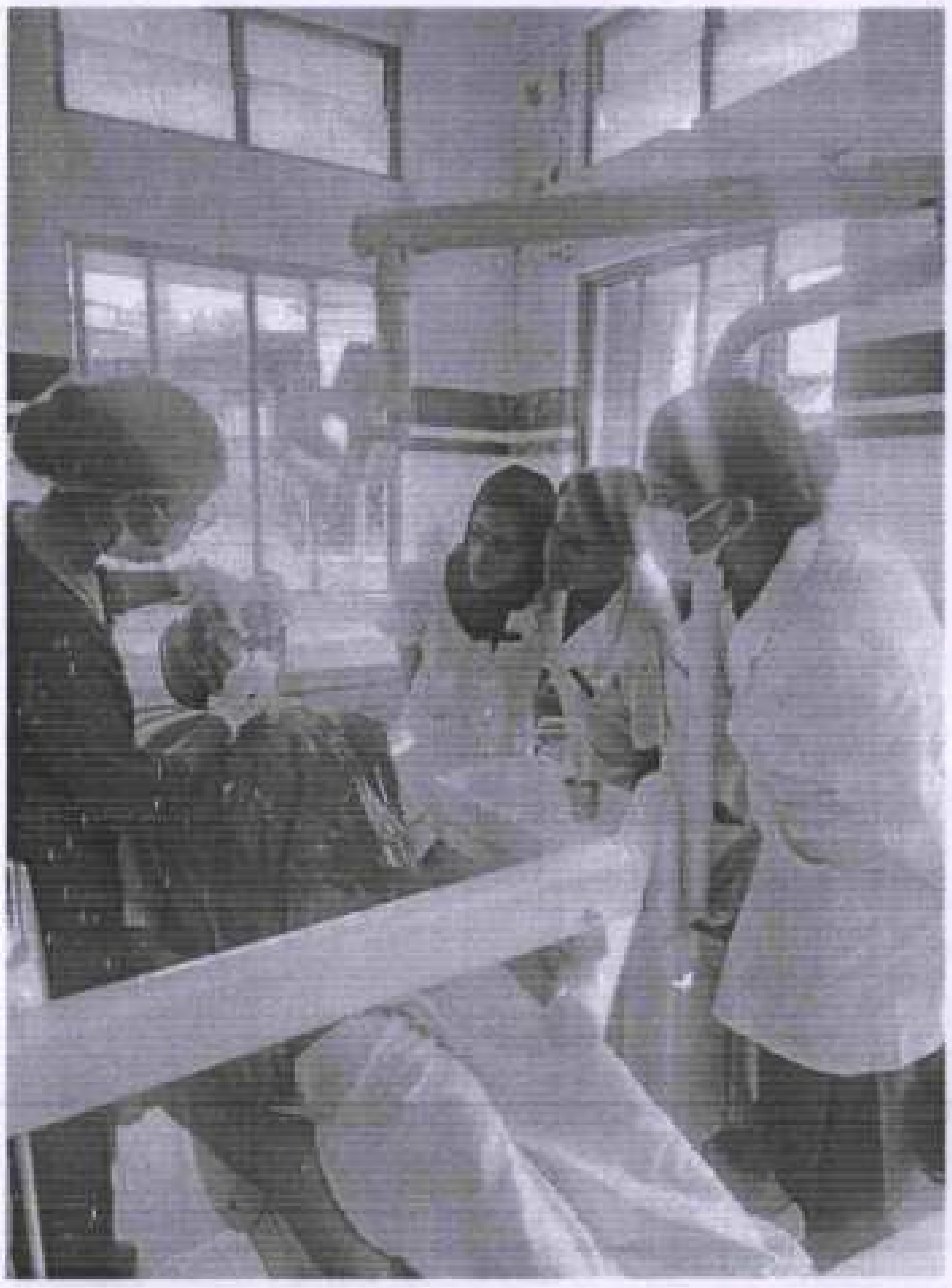
Encouragement of Study with Clinical exposures s: study groups are formed, and clinical exposures were given .which help in understanding the subject better.



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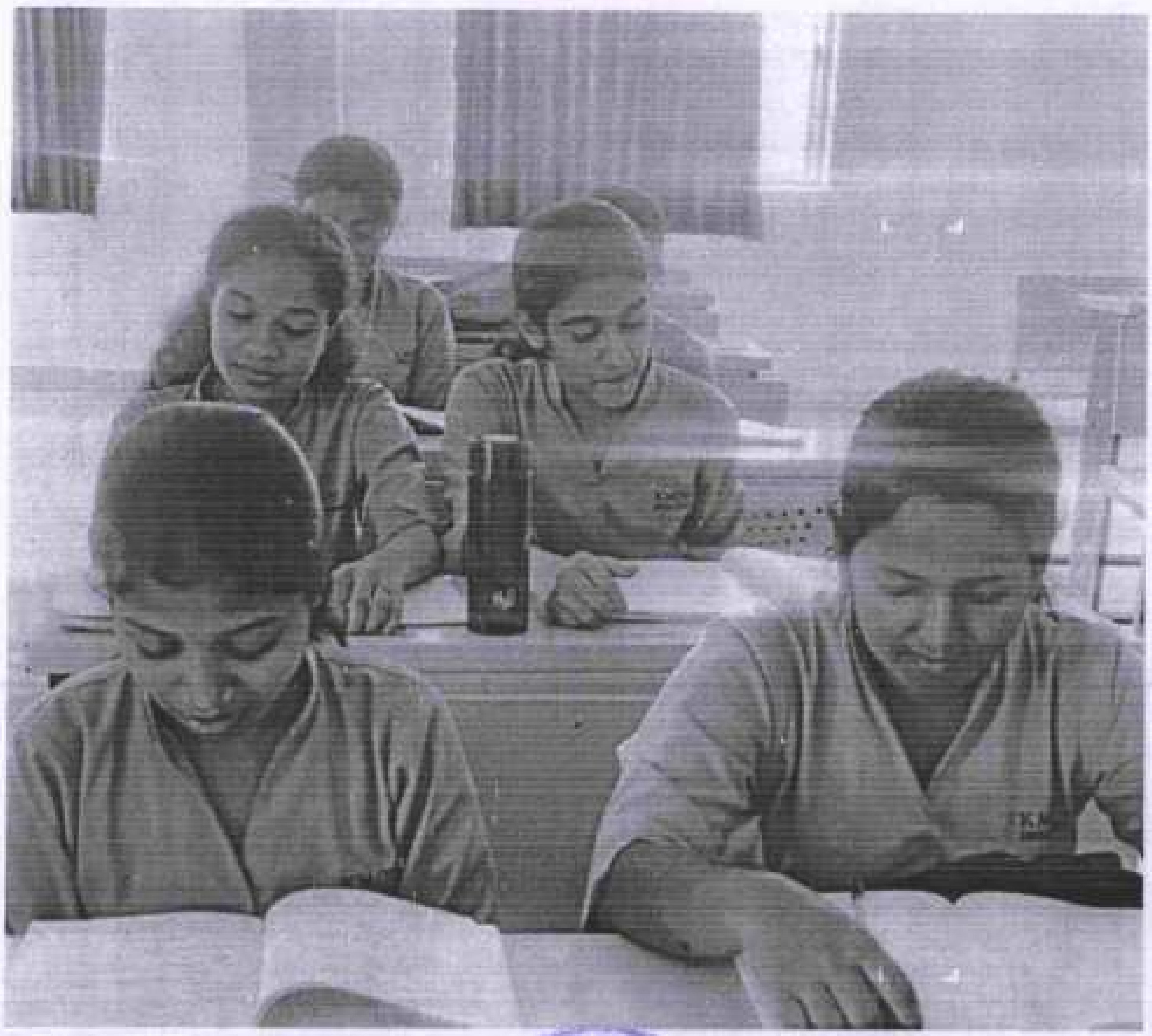
Encouraging Reading Books with Simple Language: To improve comprehension and understanding, students are encouraged to read.



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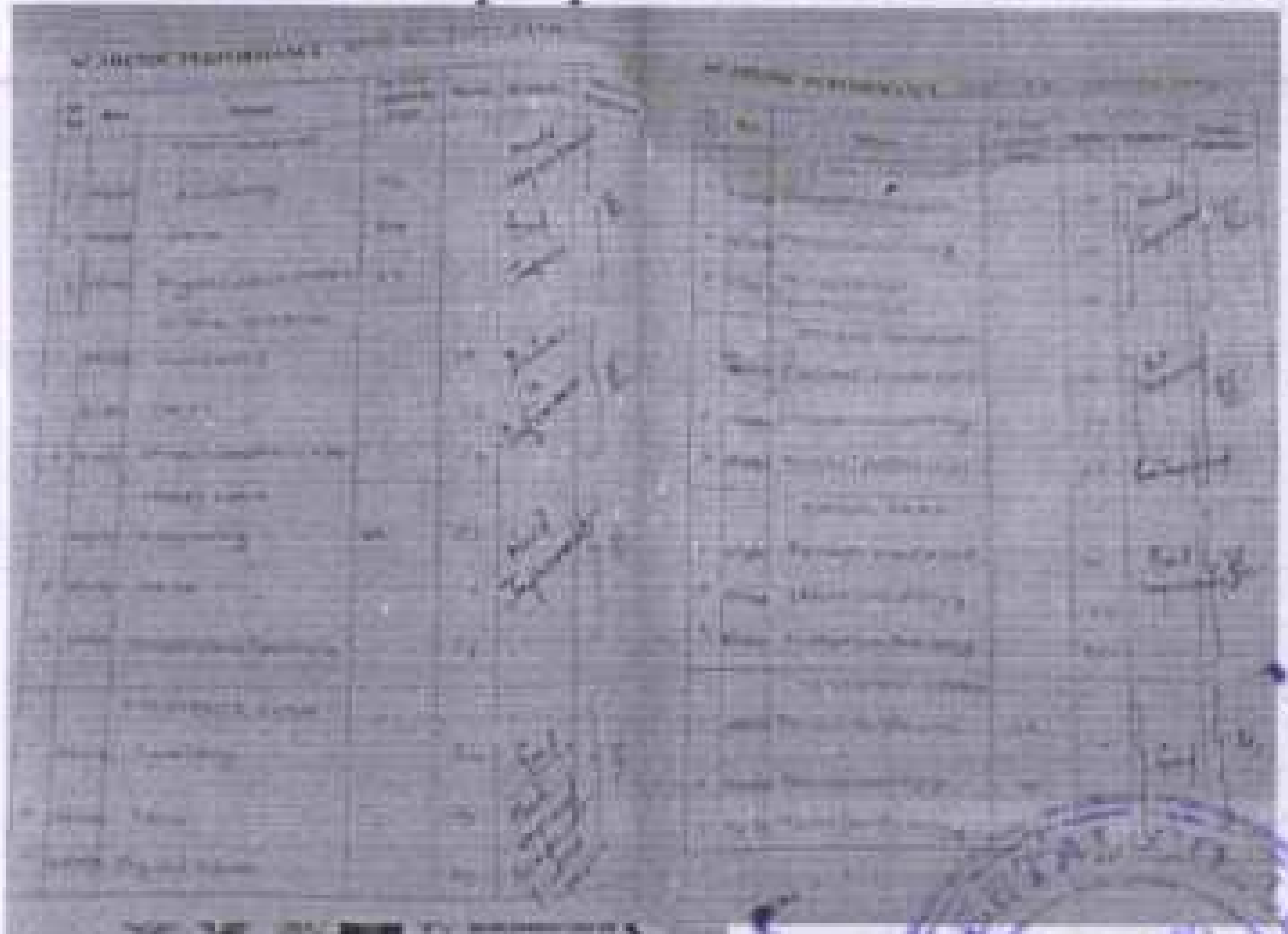
DEPARTMENT OF PROSTHODONTICS

DETAILS OF SPECIAL PROGRAMS FOR SLOW PERFORMERS

Continuous Monitoring and Individual Attention by Mentors: Each student receives personalized attention from assigned mentors who regularly monitor their academic progress, identify areas of improvement, and provide guidance and motivation.

Mentors and mentees are maintaining a logbook for each meeting. Mentorship documentation is done in a structured format, to assist the students in all areas of development, and this documentation helps fpr future refernces and evaluation.



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Special Classes with Subject Experts: Slow performers attend additional classes conducted by subject experts. These sessions focus on clarifying concepts, addressing doubts, and providing extra guidance on challenging topics.

Encouragement of Collaborative Study with Advanced Learners: Collaborative study groups are formed, pairing slow performers with high-achieving peers. This fosters a supportive learning environment where advanced learners mentor and assist their peers in understanding complex subjects

Advanced learners's helped the slow learners in making notes and aidentifying the key areas while studying and writing exams.

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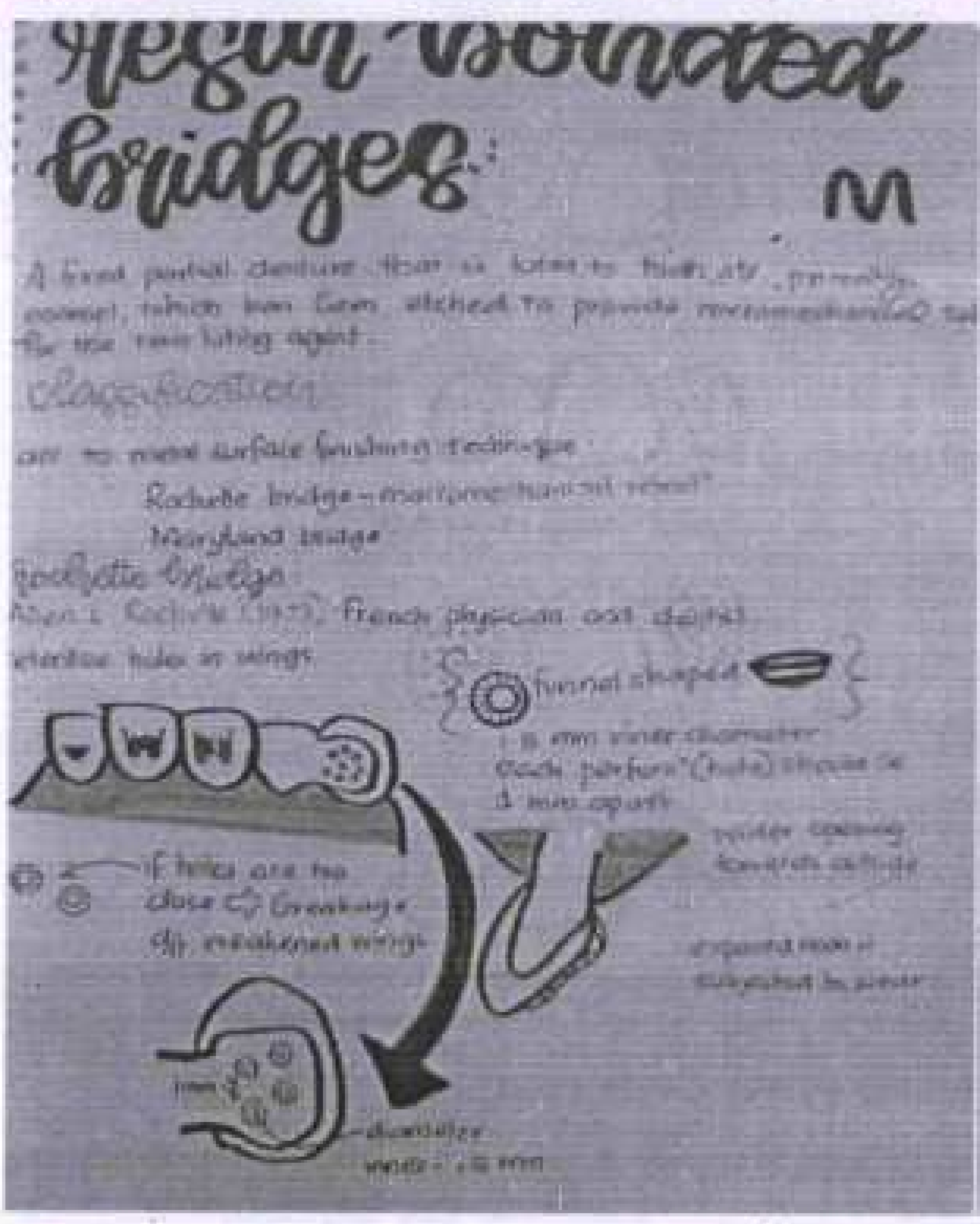


Resin bonded bridges: M

A fixed partial denture that is [illegible] to [illegible] permanently [illegible] which has been etched to provide micromechanical [illegible] for the resin luting agent.

Classification

acc to metal surface finishing technique

Rochette bridge - [illegible]

Maryland bridge

Rochette bridge

Alain Rochette (1973) French physician and dentist

[illegible] holes in wings

funnel shaped

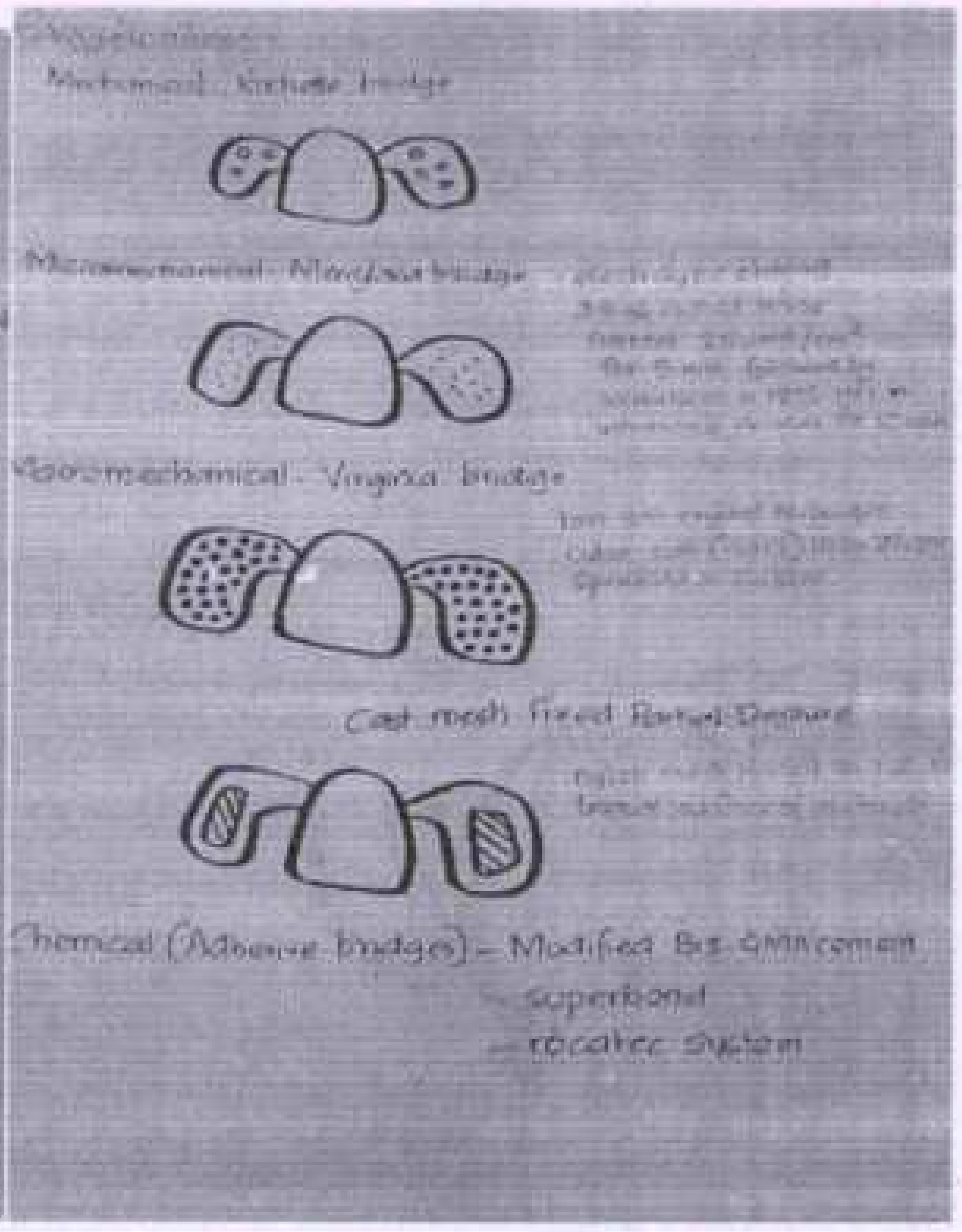
1.5 mm inner diameter

each perforation (hole) should be 3 mm apart

If holes are too close ⇨ breakage of weakened wings

[illegible]

[illegible]



Mechanical - Rochette bridge

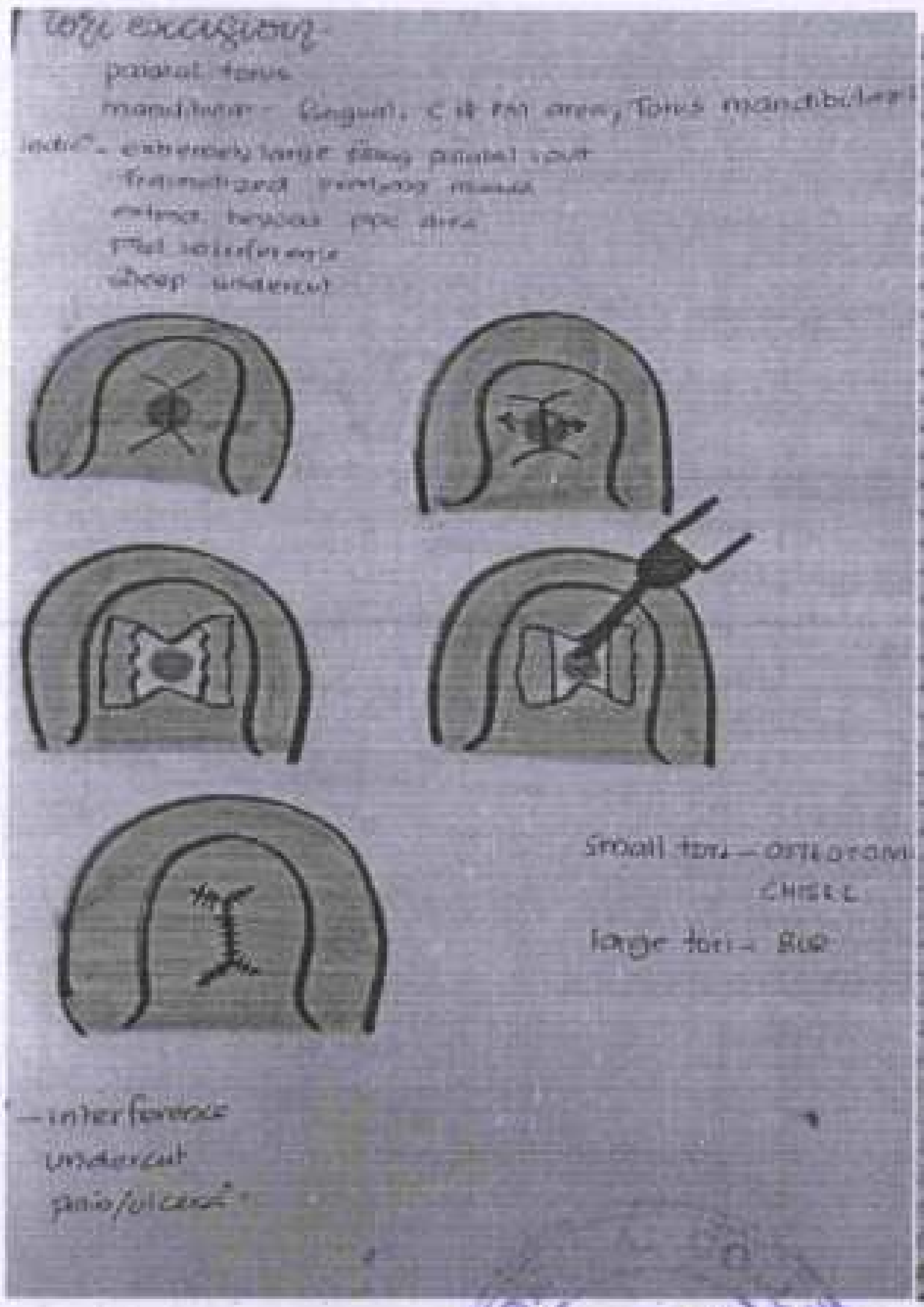
Micromechanical - Maryland bridge

Macromechanical - Virginia bridge

Cast mesh Fixed Partial Denture

Chemical (Adhesive bridges) - Modified Bis GMA cement

- superbond
- rocatec system



Tori excision

palatal torus

mandibular - lingual, [illegible] area, Torus mandibularis

indic. - extremely large [illegible]

[illegible]

[illegible]

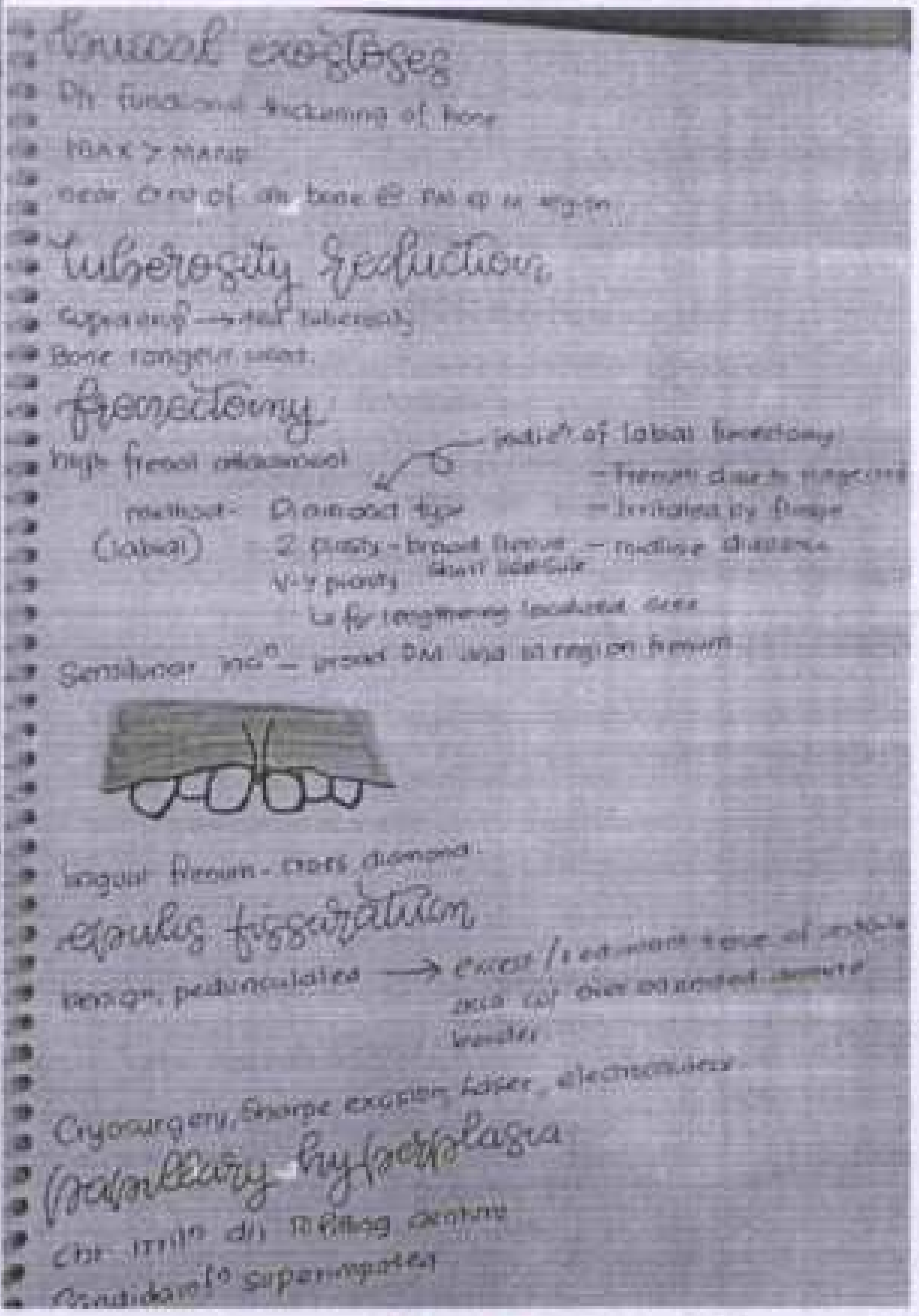
[illegible] interference

deep undercut

Small tori - osteotome chisel

large tori - Bur

- interference
- undercut
- pain/ulcer



Buccal exostoses

[illegible] functional thickening of bone

MAX > MAND

near [illegible] of [illegible] bone [illegible] region

Tuberosity reduction

[illegible] tuberosity

Bone rongeur used.

Frenectomy

high frenal attachment

indic. of labial frenectomy
- Frenum due to [illegible]
- Irritated by [illegible]
- midline diastema

method - Diamond type
(labial) 2 parallel - broad frenum
V-Y plasty short [illegible]
↳ for lengthening localized area

Semilunar inc.n - [illegible] region frenum

lingual frenum - cross diamond

Epulis fissuratum

benign, pedunculated → excess / [illegible] tissue of [illegible] [illegible] overextended denture border

Cryosurgery, Sharp excision, laser, electrosurgery

Papillary hyperplasia

[illegible] ill fitting denture

Candida [illegible] superimposed

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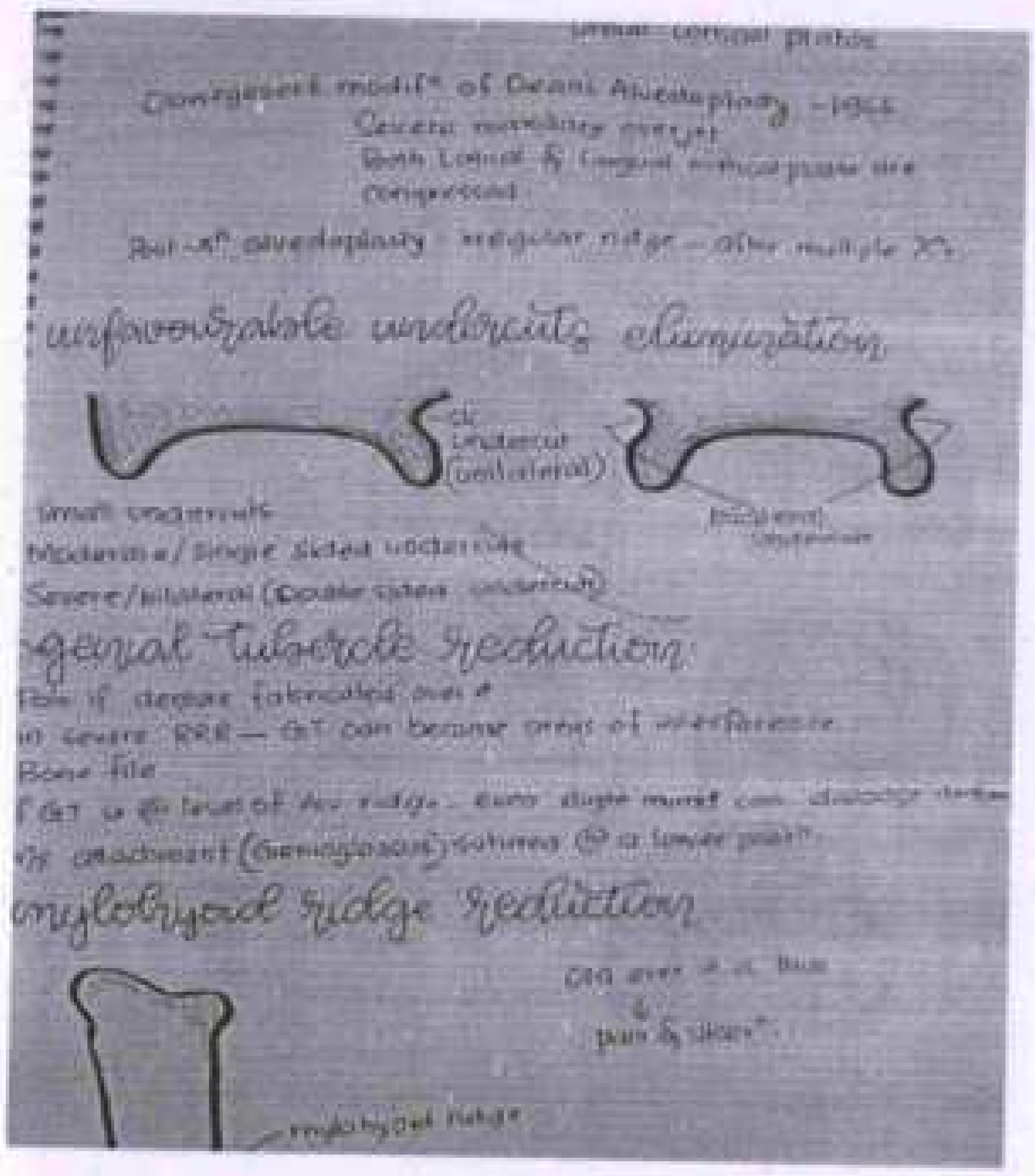
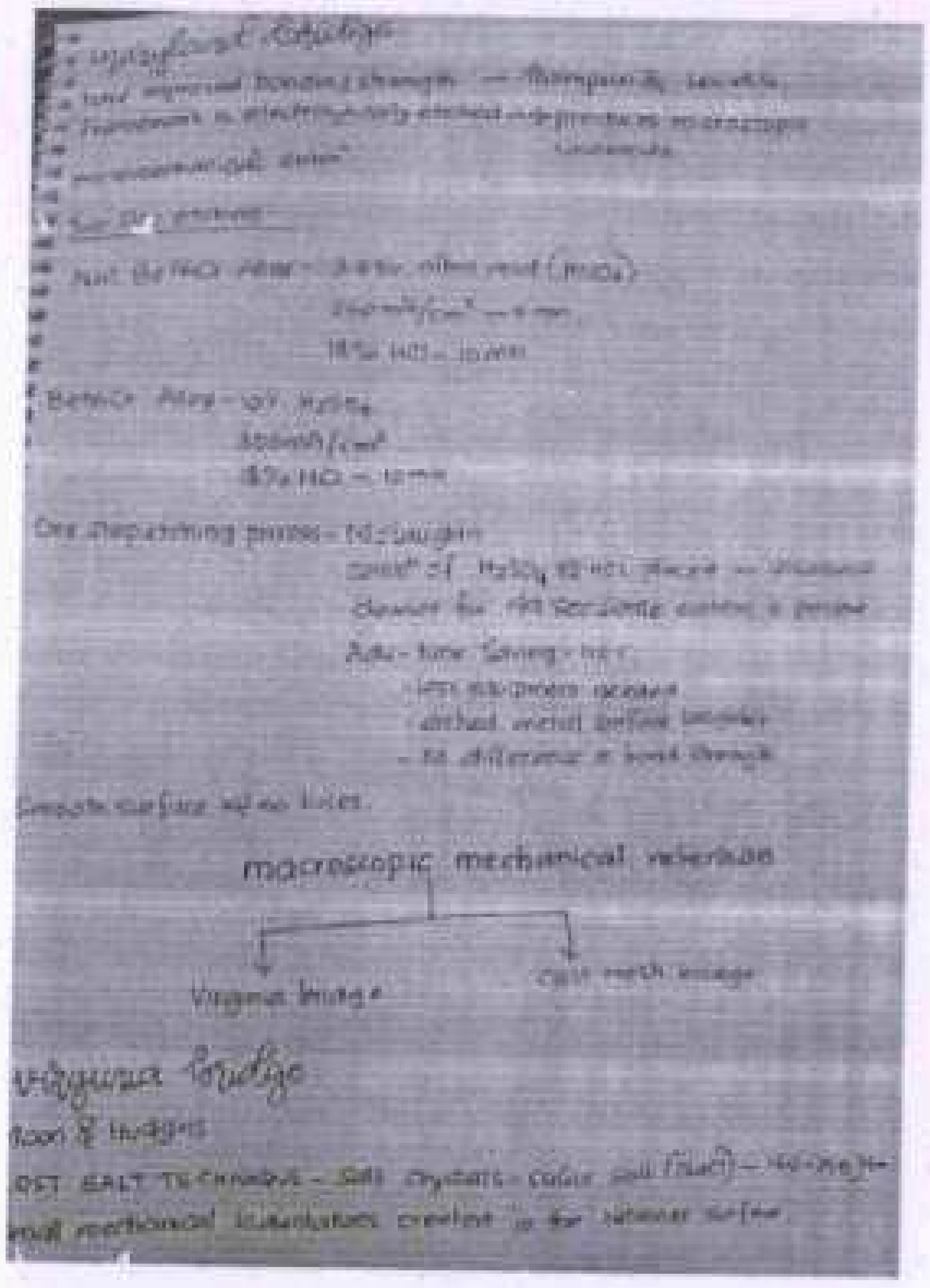

unfavourable undercuts elimination

Small undercuts
Moderate/single sided undercuts
Severe/bilateral (double sided undercuts)

genial tubercle reduction

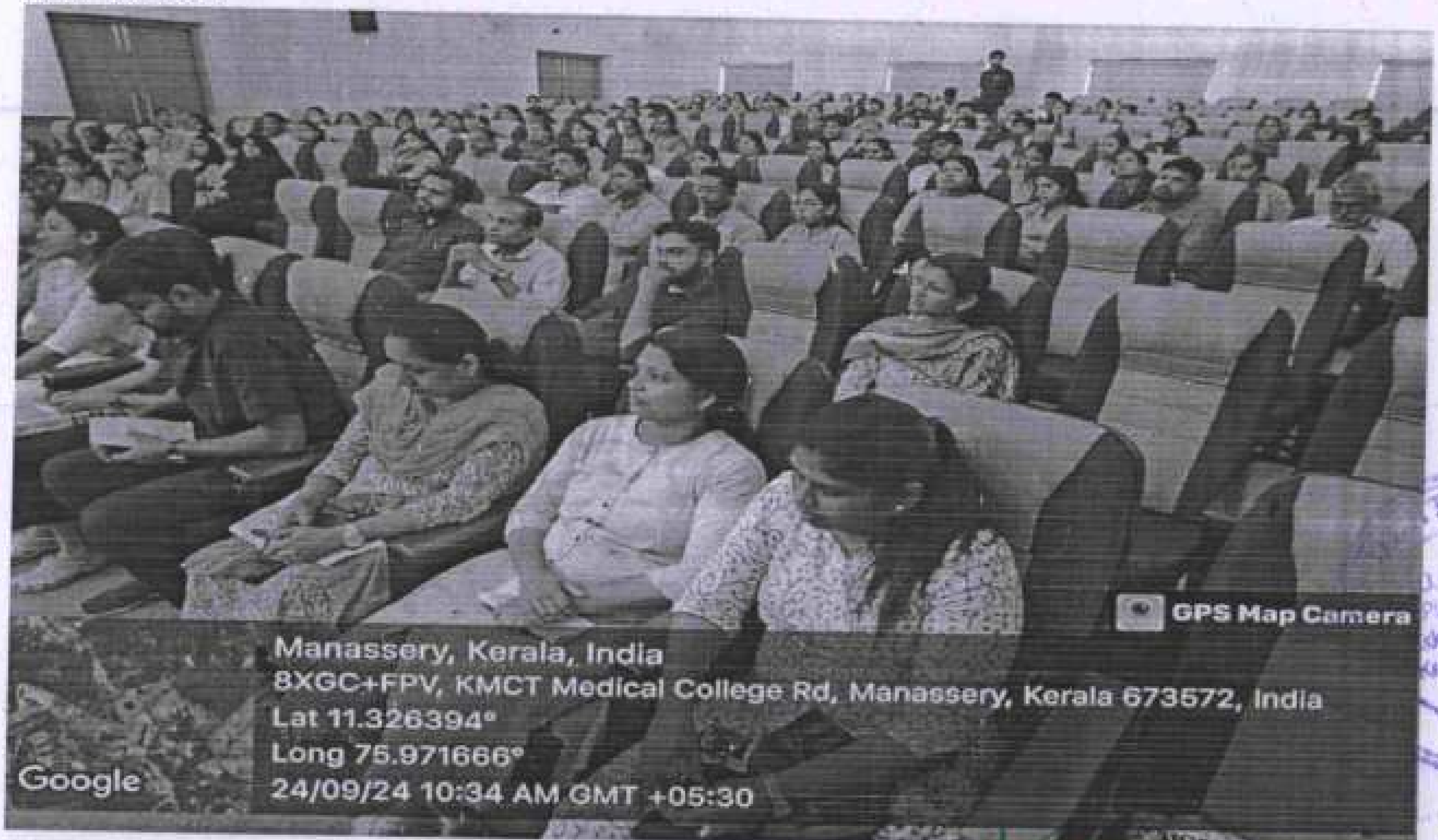
mylohyoid ridge reduction


macroscopic mechanical retention

Virginia bridge

Counseling for Students and Parents with Psychologists: Professional counselors conduct regular sessions for both students and parents to address academic concerns, study-related stress, and provide guidance on effective study techniques, enhancing mental well-being. This is done under Happiness Department

Parents meeting were conducted on a regular basis for all batches to ensure communication between parents and teachers and to help parents to identify and meet the poroblems faced by slow learners


GPS Map Camera
Manassery, Kerala, India
8XGC+FPV, KMCT Medical College Rd, Manassery, Kerala 673572, India
Lat 11.326394°
Long 75.971666°
24/09/24 10:34 AM GMT +05:30
Google

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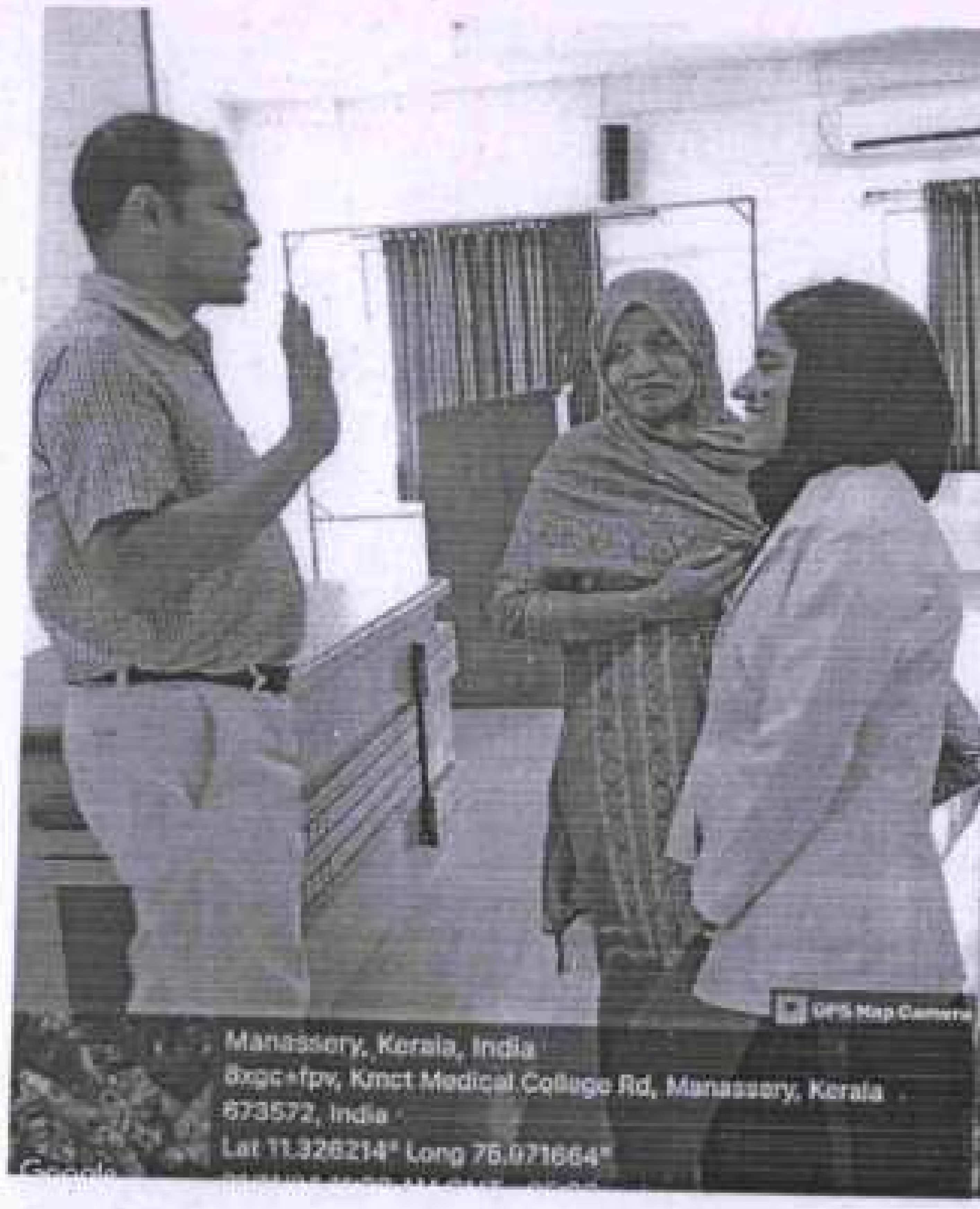
GPS Map Camera
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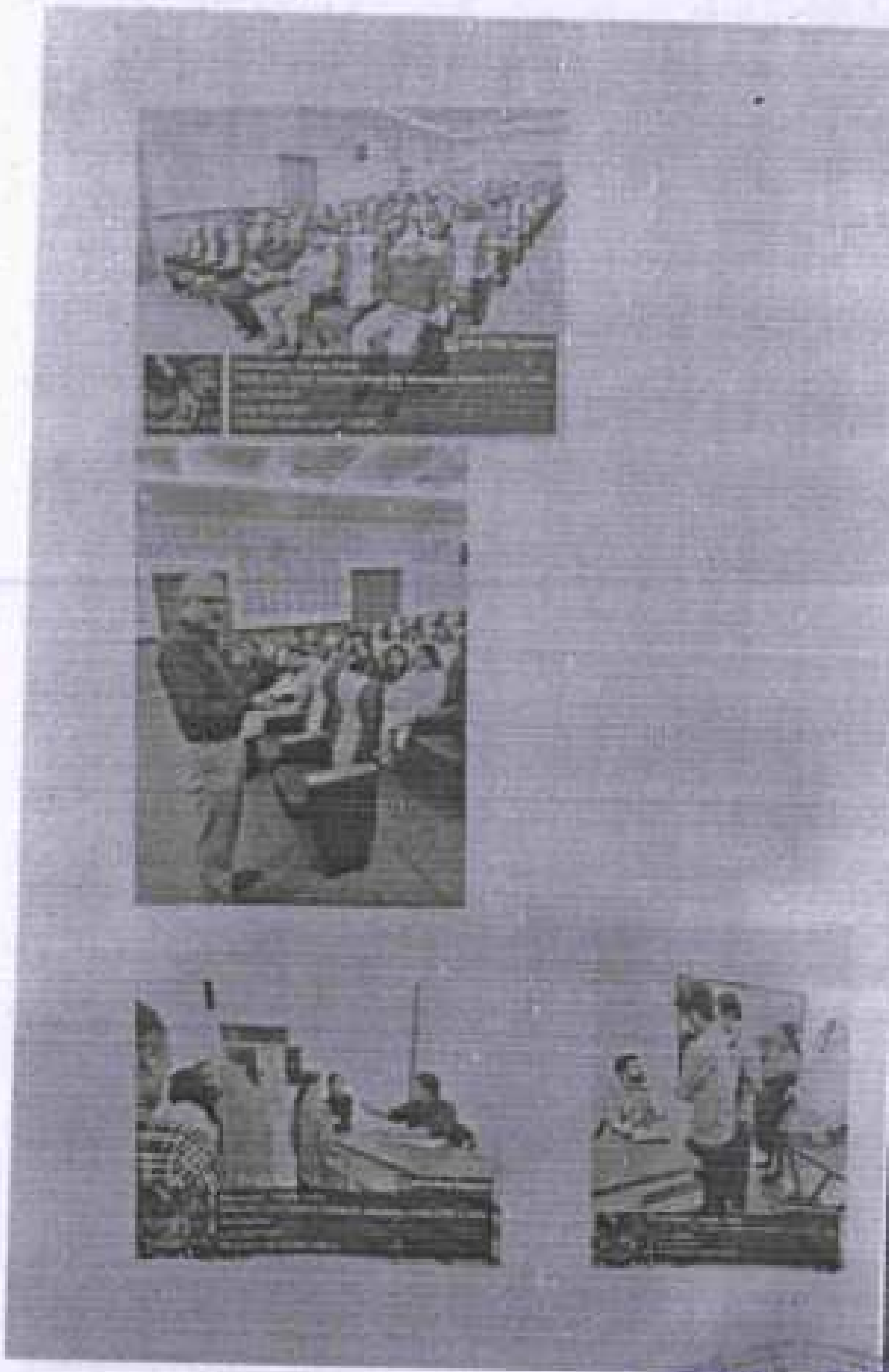
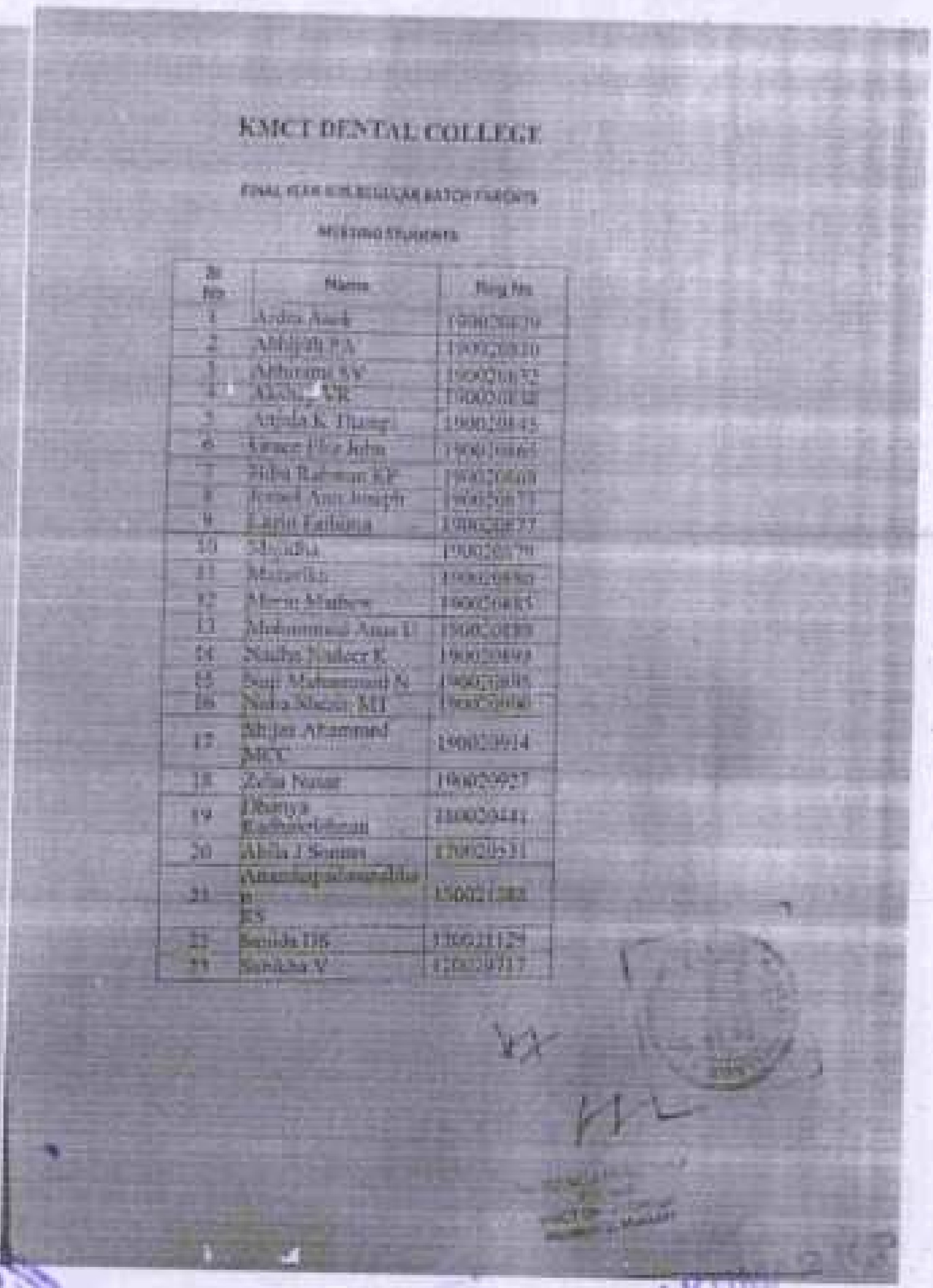
8xgc+fpv, Kmct Medical College Rd, Manassery, Kerala 673572, India
Lat 11.326214° Long 75.971664°

GPS Map Camera
Manassery, Kerala, India
8xgc+fpv, Kmct Medical College Rd, Manassery, Kerala 673572, India
Lat 11.32622° Long 75.971658°





KMCT DENTAL COLLEGE

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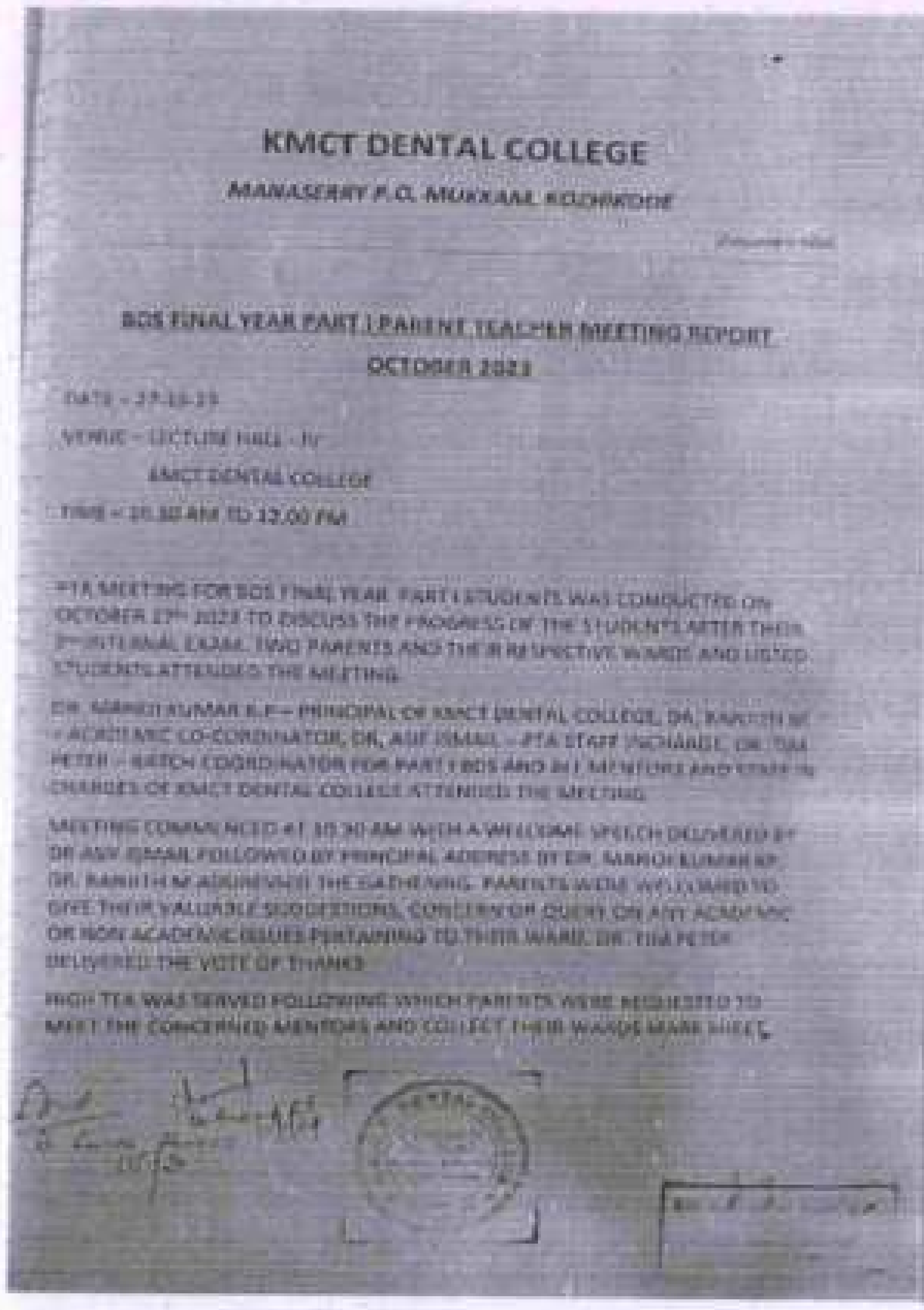
Principal
KMCT Dental College
Manassery, Mukkam



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MANASSERY P.O. MUKKAM, KOZHIKODE

BDS FINAL YEAR PART I PARENT TEACHER MEETING REPORT
OCTOBER 2023

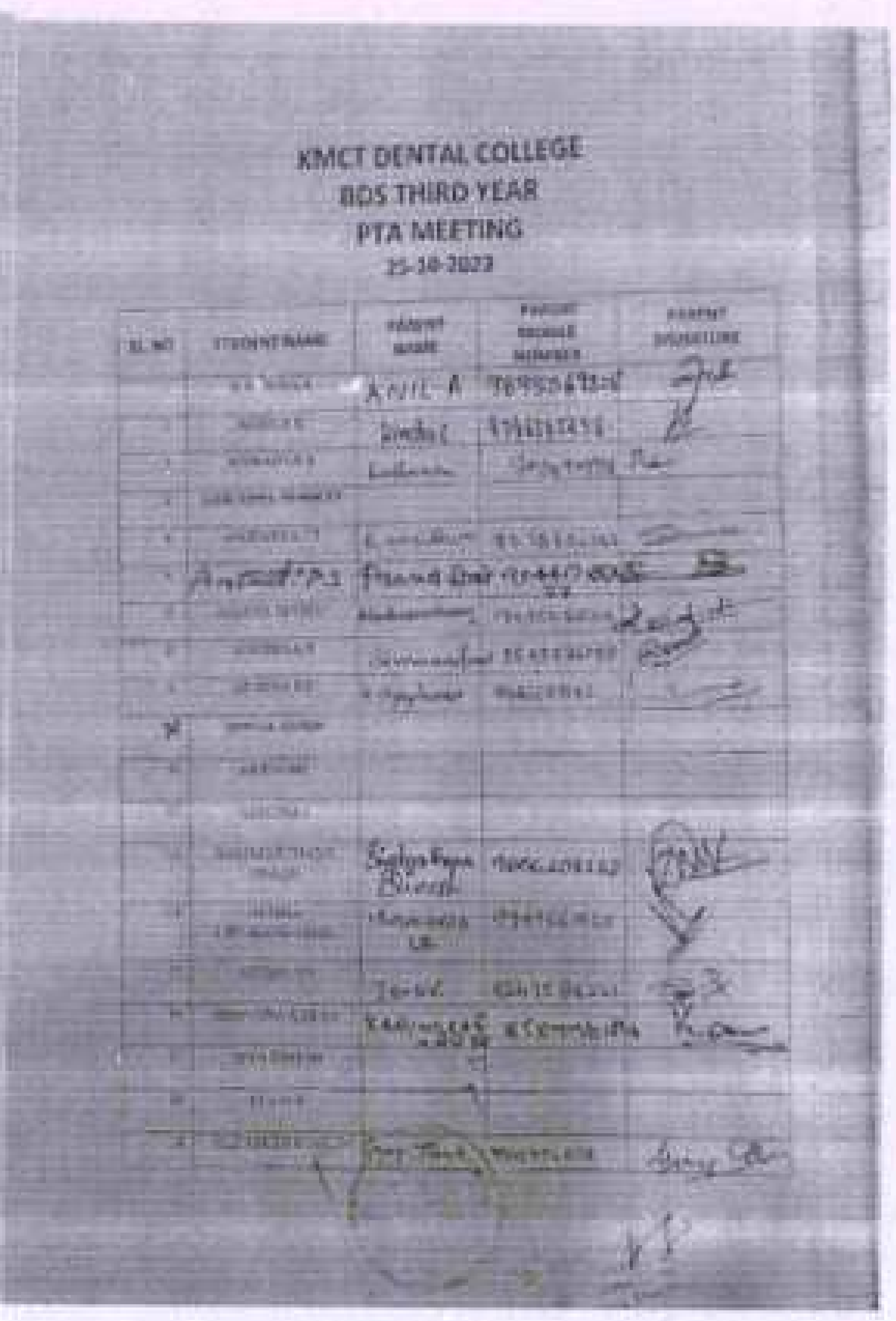
DATE – 27-10-23
VENUE – LECTURE HALL – IV
KMCT DENTAL COLLEGE
TIME – 10.30 AM TO 12.00 PM

PTA MEETING FOR BDS FINAL YEAR PART I STUDENTS WAS CONDUCTED ON OCTOBER 27th 2023 TO DISCUSS THE PROGRESS OF THE STUDENTS AFTER THEIR 2nd INTERNAL EXAM. TWO PARENTS AND THEIR RESPECTIVE WARDS AND LISTED STUDENTS ATTENDED THE MEETING.

DR. MANOJ KUMAR K.P – PRINCIPAL OF KMCT DENTAL COLLEGE, DR. RANJITH M – ACADEMIC CO-ORDINATOR, DR. ASIF ISMAIL – PTA STAFF INCHARGE, DR. TIM PETER – BATCH COORDINATOR FOR PART I BDS AND ALL MENTORS AND STAFF IN CHARGES OF KMCT DENTAL COLLEGE ATTENDED THE MEETING.

MEETING COMMENCED AT 10.30 AM WITH A WELCOME SPEECH DELIVERED BY DR ASIF ISMAIL FOLLOWED BY PRINCIPAL ADDRESS BY DR. MANOJ KUMAR KP. DR. RANJITH M ADDRESSED THE GATHERING. PARENTS WERE WELCOMED TO GIVE THEIR VALUABLE SUGGESTIONS, CONCERN OR QUERY ON ANY ACADEMIC OR NON ACADEMIC ISSUES PERTAINING TO THEIR WARD. DR. TIM PETER DELIVERED THE VOTE OF THANKS.

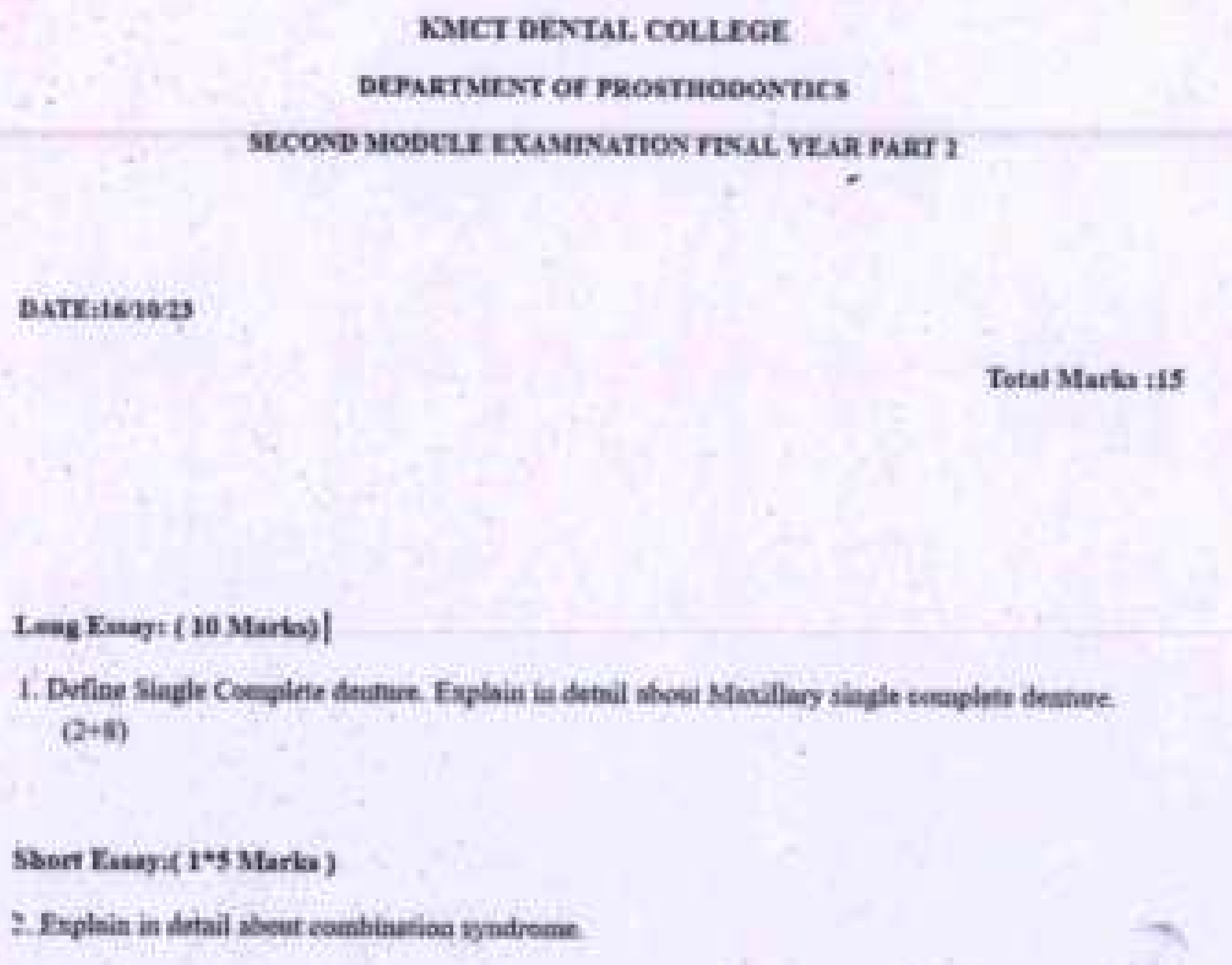
HIGH TEA WAS SERVED FOLLOWING WHICH PARENTS WERE REQUESTED TO MEET THE CONCERNED MENTORS AND COLLECT THEIR WARDS MARK SHEET.



KMCT DENTAL COLLEGE
BDS THIRD YEAR
PTA MEETING
25-10-2023

Periodical Assessments with Class Tests and Evaluation: Regular class tests and assessments are conducted to track progress, identify weak areas, and provide timely feedback. This helps students understand their strengths and weaknesses.

Midposting exams between the postings and module exams were conducted with 2-3 topics. Helps the student to cover maximum topics in detail.



KMCT DENTAL COLLEGE
DEPARTMENT OF PROSTHODONTICS
SECOND MODULE EXAMINATION FINAL YEAR PART 2

DATE:16/10/23

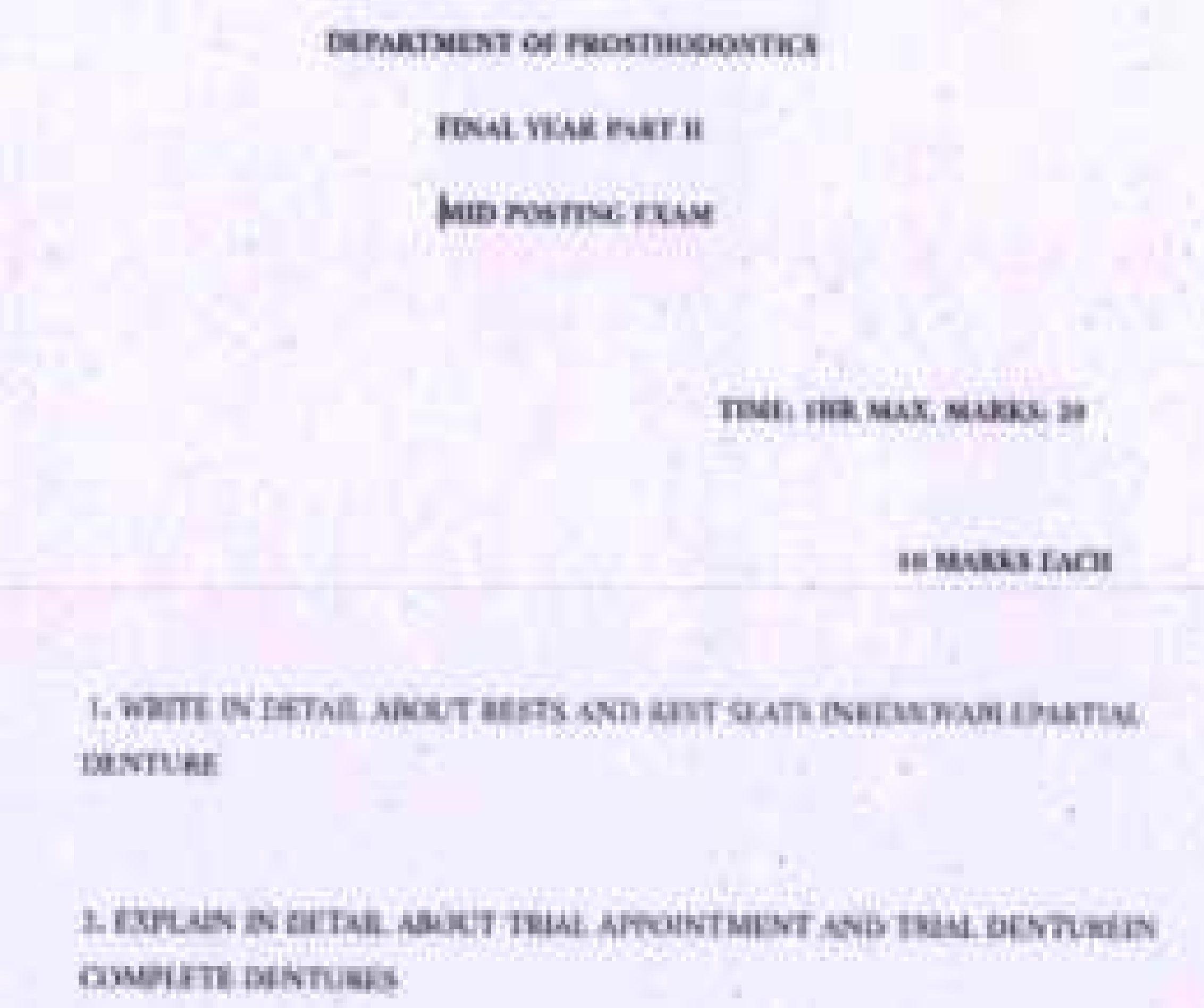
Total Marks :15

Long Essay: (10 Marks)

1. Define Single Complete denture. Explain in detail about Maxillary single complete denture. (2+8)

Short Essay:(1*5 Marks)

2. Explain in detail about combination syndrome.



DEPARTMENT OF PROSTHODONTICS
FINAL YEAR PART II
MID POSTING EXAM

TIME: 1HR MAX. MARKS: 20

10 MARKS EACH

1. WRITE IN DETAIL ABOUT RESTS AND REST SEATS IN REMOVABLE PARTIAL DENTURE

2. EXPLAIN IN DETAIL ABOUT TRIAL APPOINTMENT AND TRIAL DENTURE IN COMPLETE DENTURES

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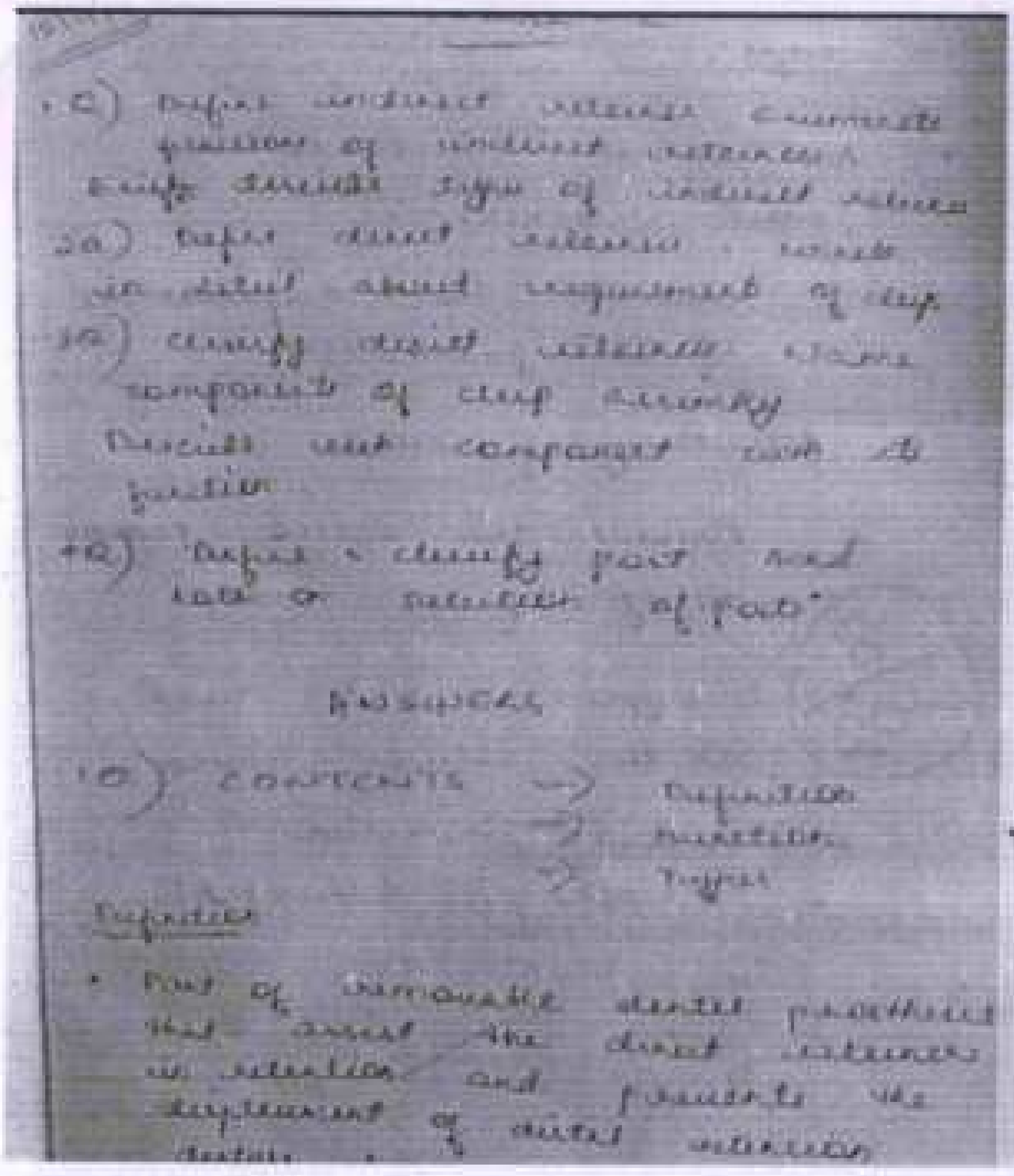


1 a) Define indirect retainer. Enumerate functions of indirect retainers. Classify & describe types of indirect retainers

2a) Define direct retainer. Write in detail about requirement of clasp.

3a) Classify direct retainers. Name components of clasp assembly. Describe each component with its function

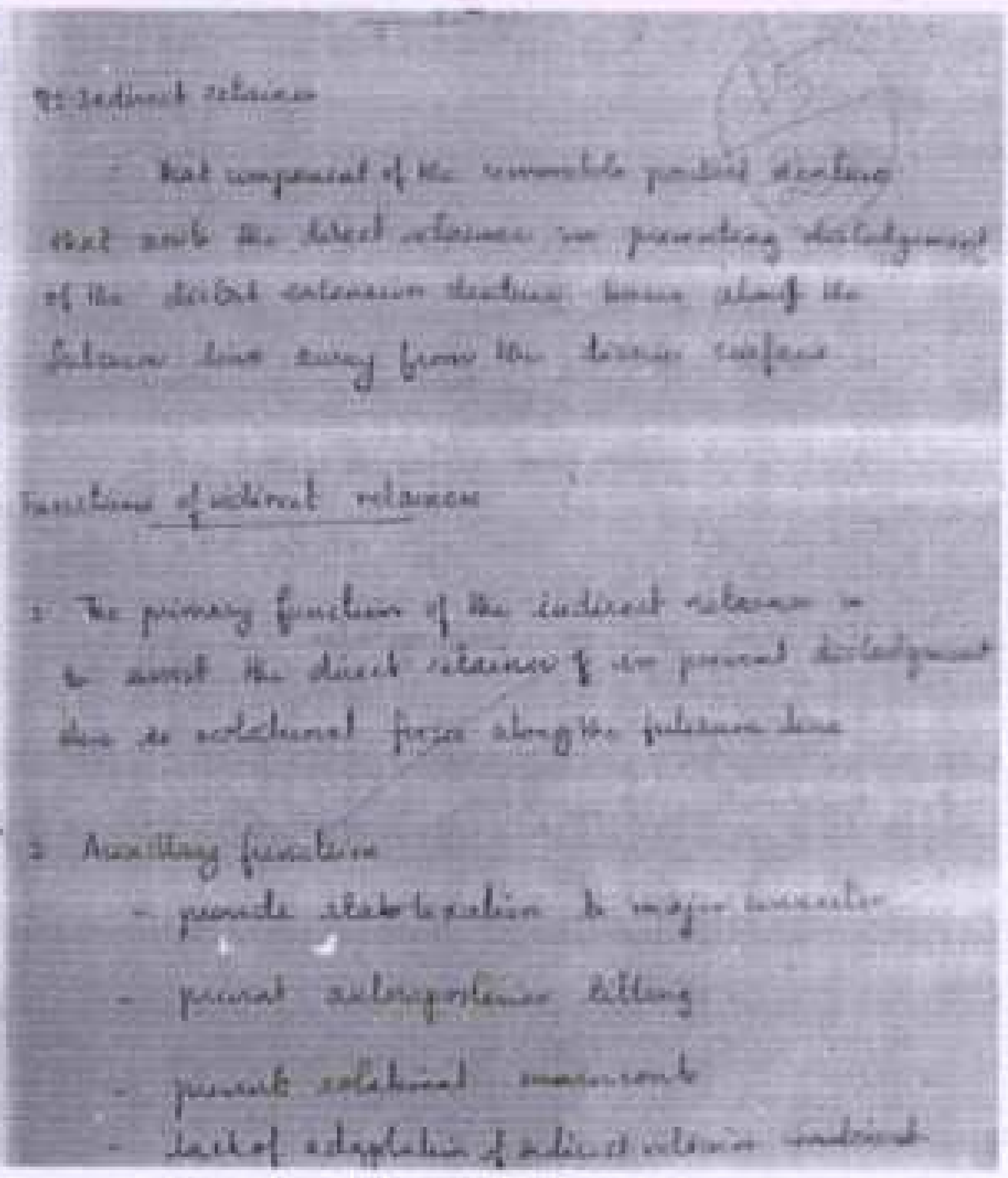
4a) Define & classify post and core or selection of post

ANSWERS

1a) CONTENTS → Definition
→ Functions
→ Types

Definition

- Part of removable dental prosthesis that assist the direct retainers in retention and prevents the displacement of distal extension denture.



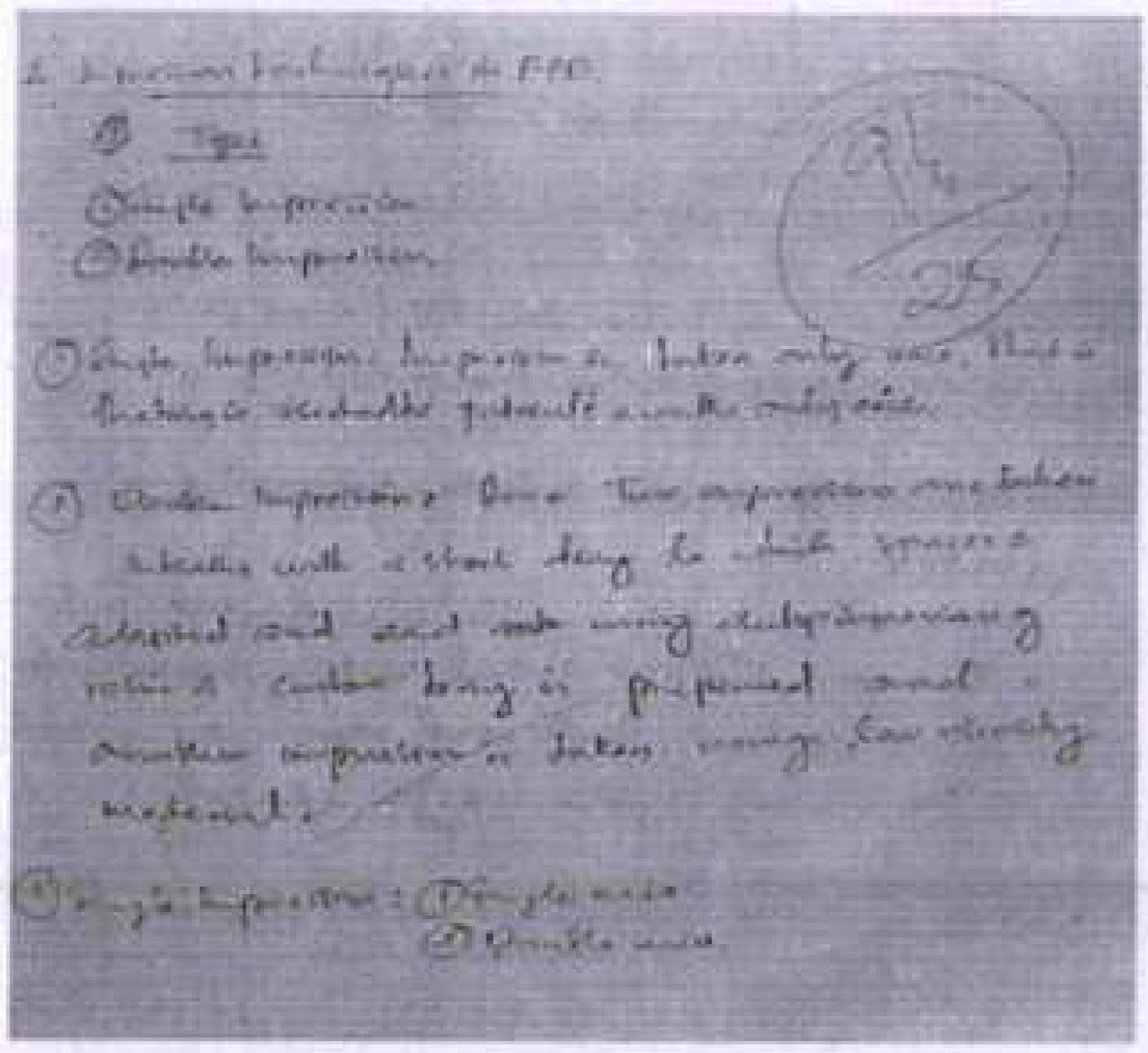
Q1 Indirect retainer

- that component of the removable partial denture that assists the direct retainer in preventing dislodgement of the distal extension denture base about the fulcrum line away from the tissue surface

Functions of indirect retainer

1 The primary function of the indirect retainer is to assist the direct retainer & so prevent dislodgement due to rotational forces along the fulcrum line

2 Auxiliary functions
- provide stabilization to major connector
- prevent anteroposterior tilting
- prevent rotational movement
- lack of adaptation of indirect retainer indicated



2. Impression techniques in FPD

① Types
① Single impression
② Double impression

21/25

① Single impression: Impression is taken only once. This is [illegible] [illegible] [illegible] only once.

② Double impression: Here two impressions are taken [illegible] with a short delay to which [illegible] [illegible] and [illegible] using [illegible] [illegible] custom tray is prepared and another impression is taken using low viscosity material.

③ Single impression: ① Single mix
② Double mix

Rapid Revision and Revision Tests Before University Examinations: Special revision sessions are organized before exams to quickly recap the syllabus, focusing on key topics Revision tests simulate exam conditions, aiding students in practicing time management.

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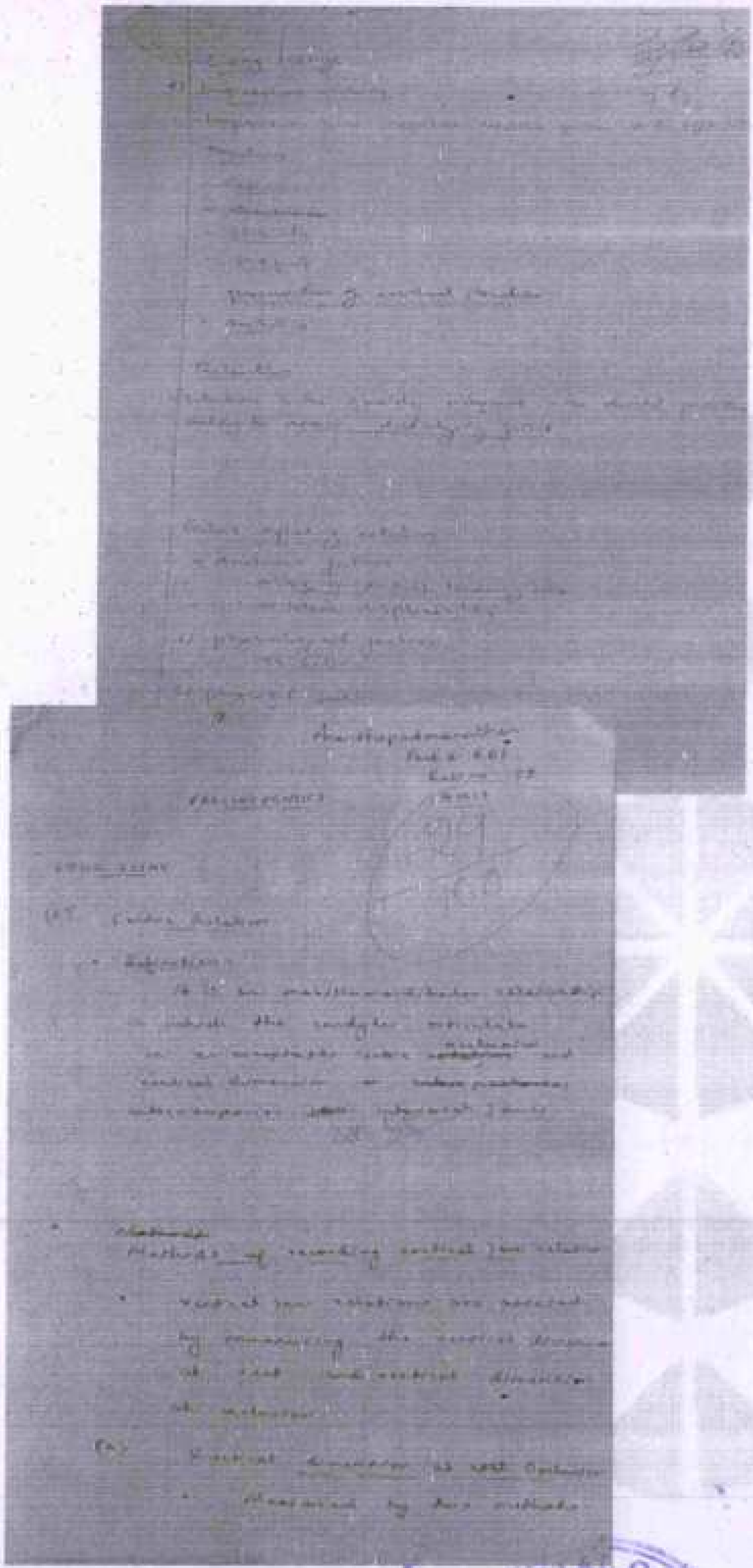

[illegible]

Centric Relation

Definition

It is the maxillomandibular relationship in which the condyles articulate [illegible]

Methods of recording vertical jaw relation

- Vertical jaw relations are recorded by measuring the vertical dimension at rest and vertical dimension at occlusion.

(a) Vertical dimension at rest
- Measured by two methods

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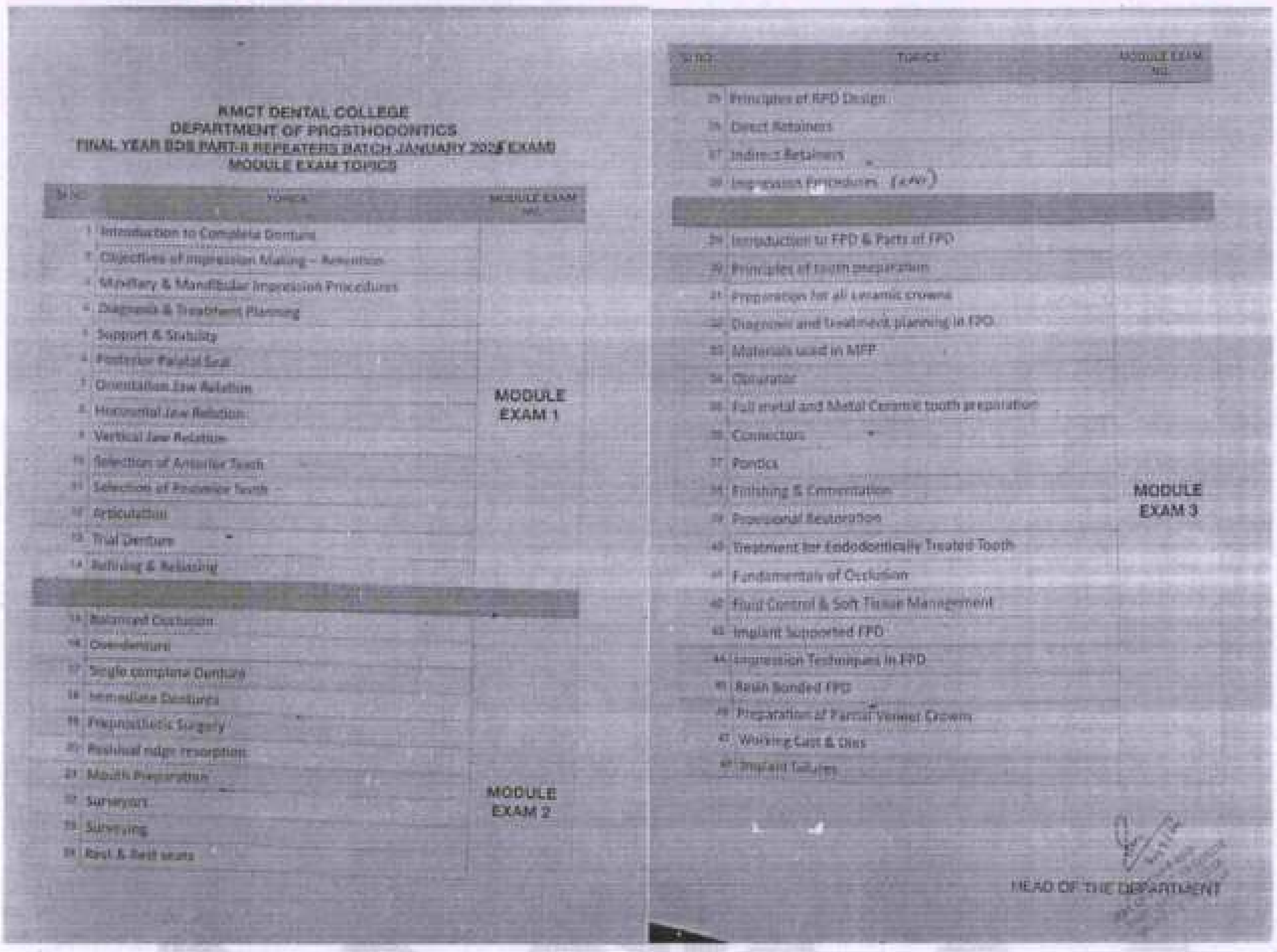

KMCT DENTAL COLLEGE
DEPARTMENT OF PROSTHODONTICS
FINAL YEAR BDS PART-II REPEATERS BATCH JANUARY 2025 EXAM
MODULE EXAM TOPICS

Sl NO	TOPICS	MODULE EXAM NO.
1	Introduction to Complete Denture	MODULE EXAM 1
2	Objectives of Impression Making – Retention	
3	Maxillary & Mandibular Impression Procedures	
4	Diagnosis & Treatment Planning	
5	Support & Stability	
6	Posterior Palatal Seal	
7	Orientation Jaw Relation	
8	Horizontal Jaw Relation	
9	Vertical Jaw Relation	
10	Selection of Anterior Teeth	
11	Selection of Posterior Teeth	
12	Articulation	
13	Trial Denture	
14	Relining & Rebasing	
15	Balanced Occlusion	MODULE EXAM 2
16	Overdenture	
17	Single complete Denture	
18	Immediate Dentures	
19	Preprosthetic Surgery	
20	Residual ridge resorption	
21	Mouth Preparation	
22	Surveyors	
23	Surveying	
24	Rest & Rest seats	
25	Principles of RPD Design	
26	Direct Retainers	
27	Indirect Retainers	
28	Impression Procedures (RPD)	
29	Introduction to FPD & Parts of FPD	MODULE EXAM 3
30	Principles of tooth preparation	
31	Preparation for all ceramic crowns	
32	Diagnosis and treatment planning in FPD	
33	Materials used in MFP	
34	Obturator	
35	Full metal and Metal Ceramic tooth preparation	
36	Connectors	
37	Pontics	
38	Finishing & Cementation	
39	Provisional Restoration	
40	Treatment for Endodontically Treated Tooth	
41	Fundamentals of Occlusion	
42	Fluid Control & Soft Tissue Management	
43	Implant Supported FPD	
44	Impression Techniques in FPD	
45	Resin Bonded FPD	
46	Preparation of Partial Veneer Crowns	
47	Working Cast & Dies	
48	Implant failures	

HEAD OF THE DEPARTMENT

Encouraging Reading Books with Simple Language: To improve comprehension and understanding, students are encouraged to read supplementary materials or simplified textbooks that explain complex topics in simpler language.

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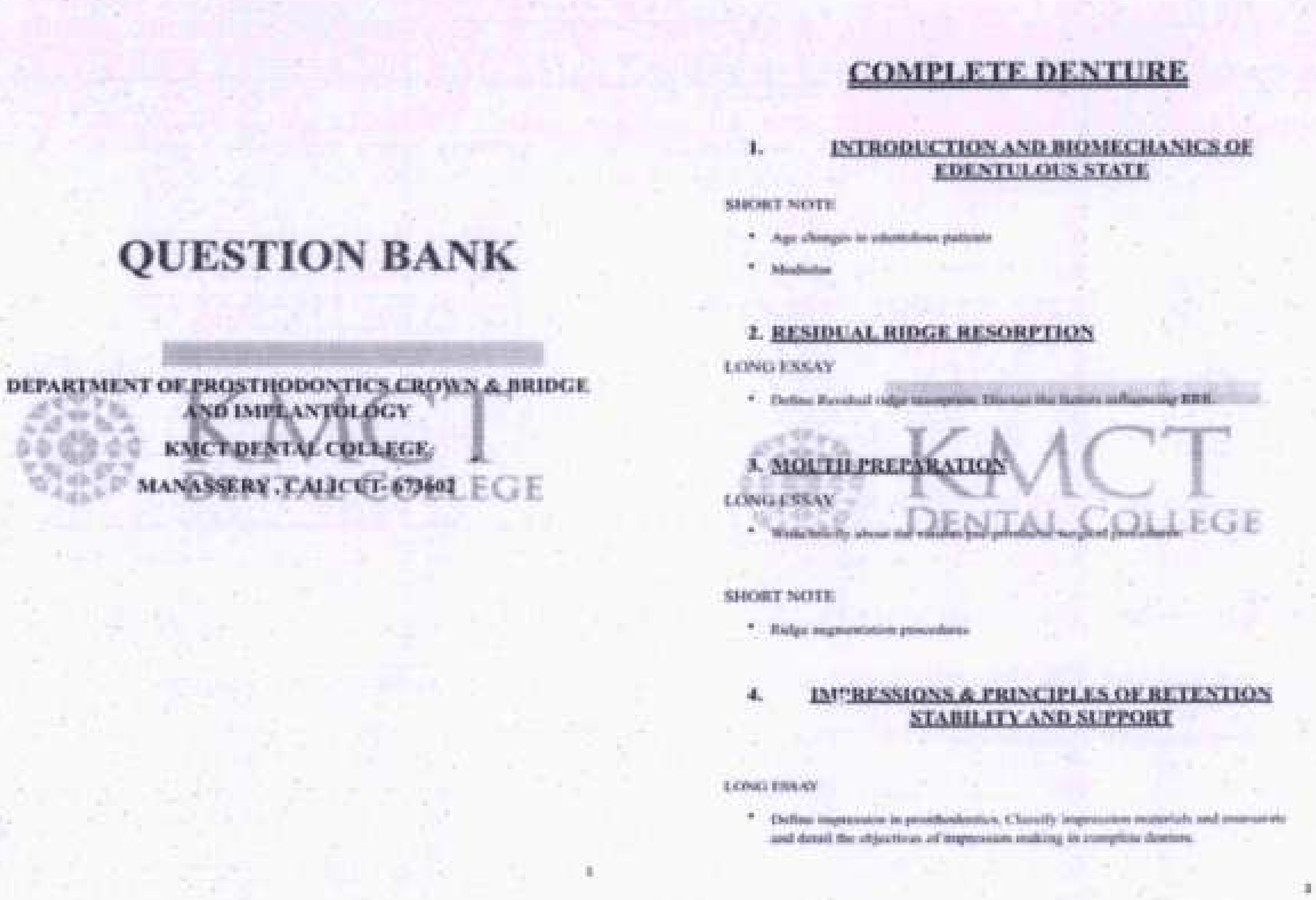

QUESTION BANK

DEPARTMENT OF PROSTHODONTICS CROWN & BRIDGE AND IMPLANTOLOGY
KMCT DENTAL COLLEGE
MANASSERY, CALICUT-673602

COMPLETE DENTURE

1. INTRODUCTION AND BIOMECHANICS OF EDENTULOUS STATE

SHORT NOTE

- Age changes in edentulous patients
- Modiolus

2. RESIDUAL RIDGE RESORPTION

LONG ESSAY

- Define Residual ridge resorption. Discuss the factors influencing RRR.

3. MOUTH PREPARATION

LONG ESSAY

- Write briefly about the various pre prosthetic surgical procedures.

SHORT NOTE

- Ridge augmentation procedures

4. IMPRESSIONS & PRINCIPLES OF RETENTION STABILITY AND SUPPORT

LONG ESSAY

- Define impression in prosthodontics. Classify impression materials and trays and detail the objectives of impression making in complete denture.

3

Provision of Special Notes: Specialized study materials, including simplified notes and summaries, are provided to slow performers, aiding in better understanding and retention of crucial concepts.

Secondary Impression Procedures

1. Conventional approach

2. Fluid wax technique

Iowa wax	White color	Dr. Smith
Korecta wax no. 4	Orange color	Dr. O. C. Applegate
Adaptol wax	Green color	Nathan G. Kaye
H-L physiological paste	Yellow white	C. S. Harkins

Preparation of the Master Cast and Special Tray

Customized Learning Plans: Tailored learning plans are designed to cater to specific learning styles, pace, and requirements, ensuring a more personalized learning experience.

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DEPARTMENT OF PROSTHODONTICS

LESSON PLAN

LESSON TITLE	UNDERSTANDING VAROUS DIES AND DIE SYSTEMS
TEACHER	DR.MONISHA KP
BATCH	FOURTH YEAR PART 2
DATE	22/8/2023

Duration: 2 hours

Objectives:

To understand the preparation, materials, and systems used for dies in prosthodontics, and their role in fabricating indirect restorations.

By the end of this lesson, participants will be able to:

1. Understand the lab procedures involved in fabricating a die.
2. Understand the steps in pouring cast and dies,fabricating wax patterns
3. Describe the process of fabricating dies, and different die systems, including recent advances
4. Explain and understand the recent advances in die systems

Materials:

- Presentation slides
- Casts, dies, dowel pins
- Die materials (gypsum products, die stones, epoxy resins, etc.)
- Visual aids (models, diagrams)
- Handouts with key points

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LESSON PLAN:

1. **Introduction (15 minutes)**
    - Introduction of the topic.
    - Discuss the significance of lab procedures in FPD
    - Present the learning objectives.

2. **Overview of Lab procedures in FPD (20 minutes)**
    - Explain about working casts and dies, requirements and materials for working casts and dies
    - Brief overview of the importance of dies in prosthodontics
    - Explanation of what a die is and its role in fabricating indirect restorations

3. **Die Preparation (20 minutes)**
    - Steps involved in die preparation
    - Importance of accurate impressions and pouring techniques
    - Trimming and finishing of the die

4. **Die Materials (30 minutes)**
    - Types of die materials: gypsum products (Type III, IV, V), die stones, epoxy resins, etc.
    - Properties, advantages, and disadvantages of each material
    - Selection criteria for die materials based on the type of restoration

5. **Die Systems (30 minutes)**
    - Overview of different die systems: removable die systems, solid cast systems, articulated systems

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  - Advantages and applications of each system
  - Practical demonstration of setting up a die system

6. Hands-On Activity (20 minutes)

  - Students practice preparing a die using gypsum products
  - Demonstration of trimming and finishing techniques
  - Discussion on common challenges and troubleshooting tips

7. Q&A and Discussion (10 minutes)

  - Open floor for questions and answers
  - Discussion on real-life applications and case studies

8. Conclusion (10 minutes)

  - Recap of key points covered in the lesson
  - Importance of proper die preparation and selection in achieving optimal fit and function of restorations
  - Encouragement for further reading and practice

Assessment:

- Short quiz on die materials and systems
- Practical assessment of die preparation skills

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DEPARTMENT OF PROSTHODONTICS,CROWN BRIDGE AND IMPLANTOLOGY

Special Classes with Subject Experts: Slow performers attend additional classes conducted by subject experts. These sessions focus on clarifying concepts, addressing doubts, and providing extra guidance on challenging topics.

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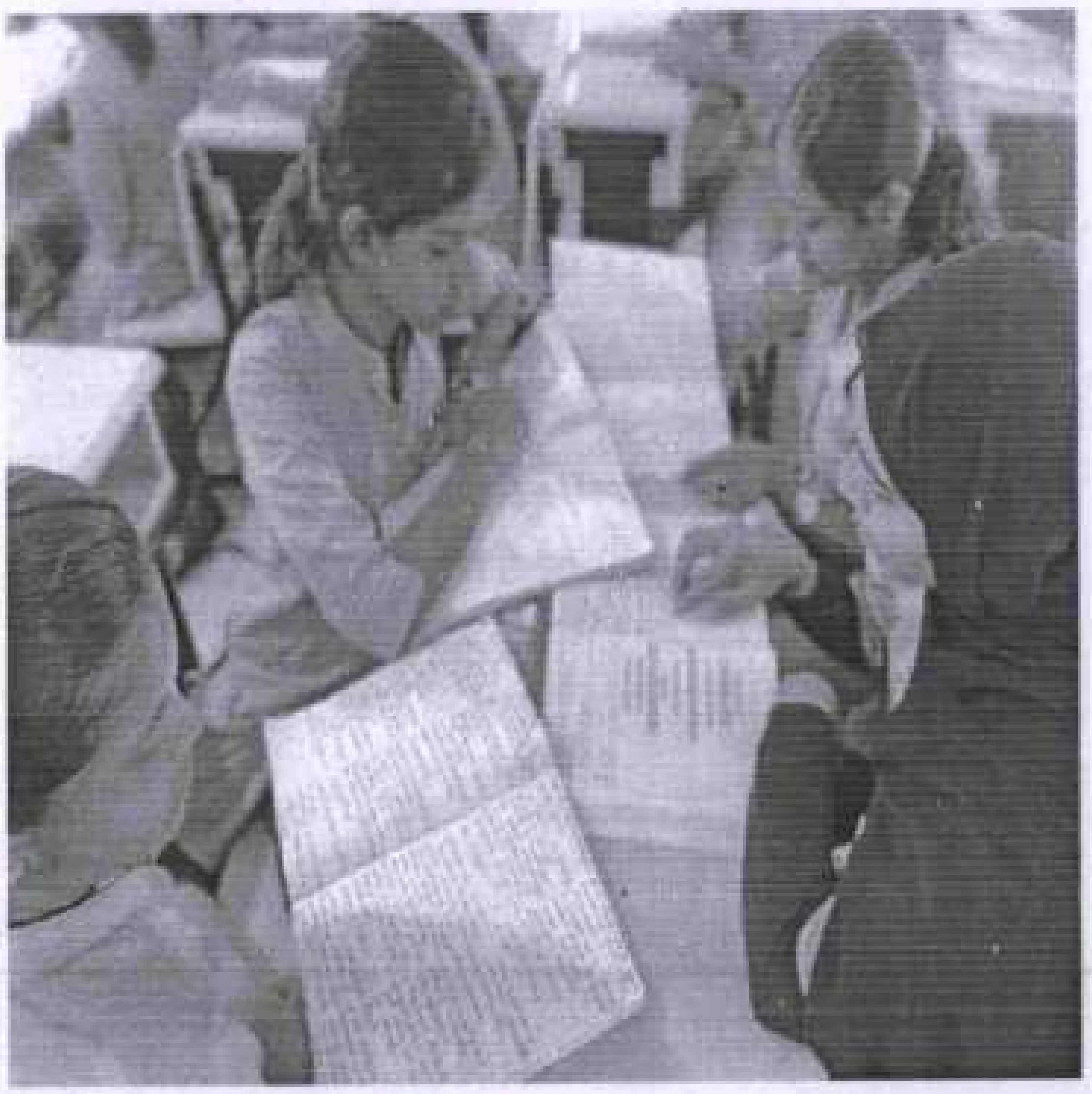
Encouragement of Collaborative Study with Advanced Learners: Collaborative study groups are formed, pairing slow performers with high-achieving peers. This fosters a supportive learning environment where advanced learners mentor and assist their peers in understanding complex subjects.



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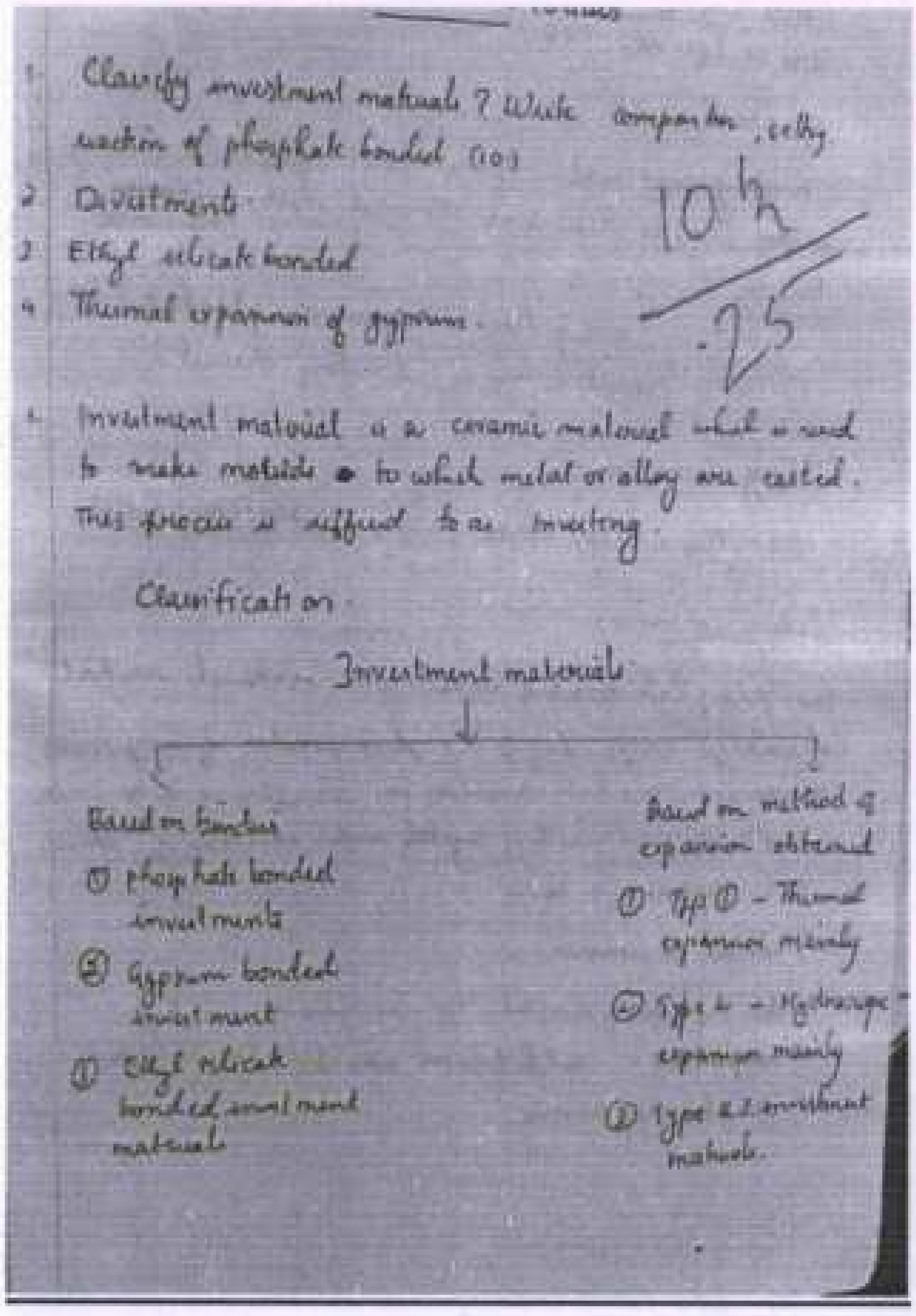


1 Classify investment materials ? Write composition, setting reaction of phosphate bonded (10)
2 Investment
3 Ethyl silicate bonded
4 Thermal expansion of gypsum.

10½
/25

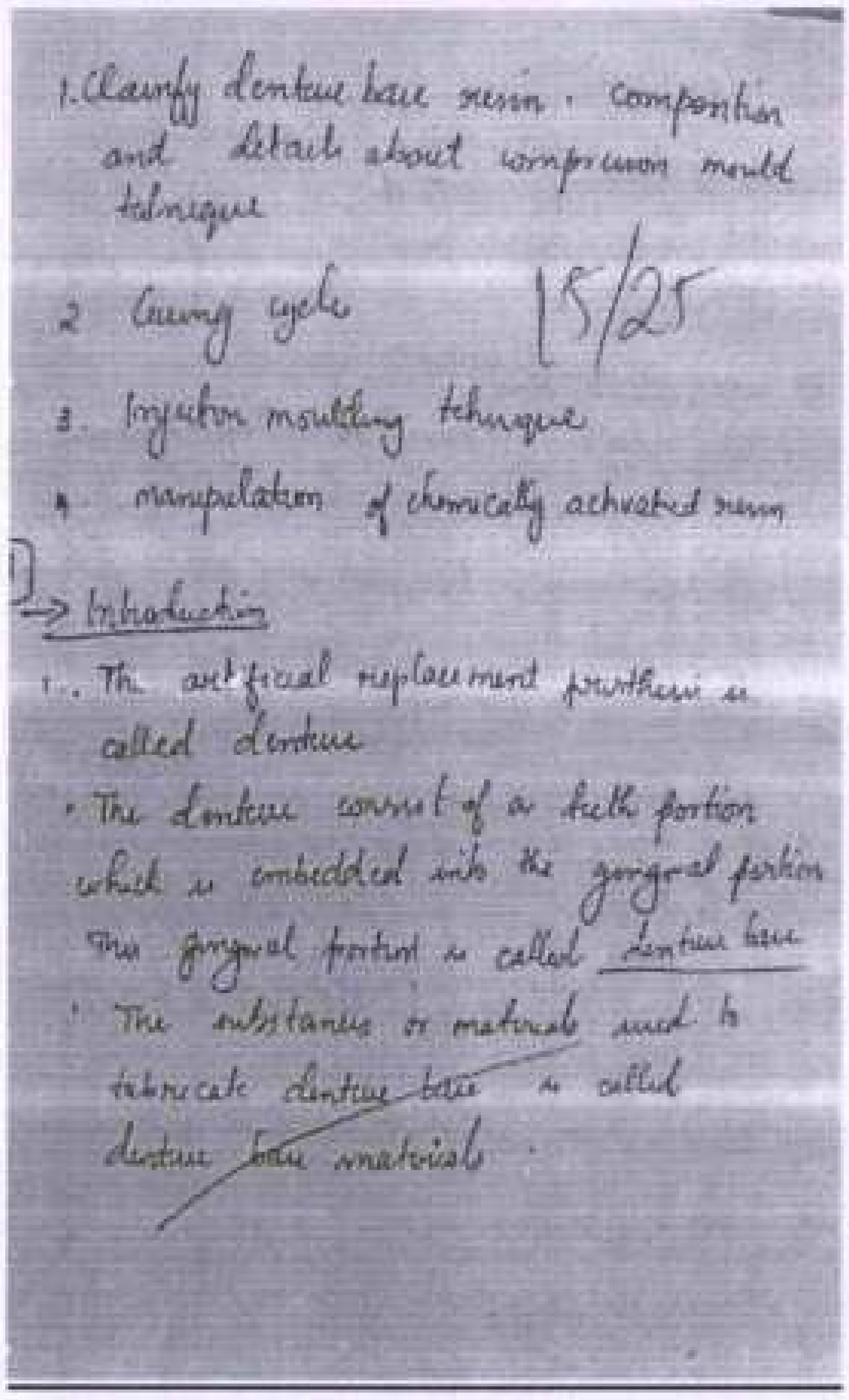
1 Investment material is a ceramic material which is used to make moulds to which metal or alloy are casted. This process is reffered to as investing.

Classification

Investment materials

Based on binder
① phosphate bonded investments
② Gypsum bonded investment
③ Ethyl silicate bonded investment materials

Based on method of expansion obtained
① Type ① - Thermal expansion mainly
② Type 2 - Hydroscopic expansion mainly
③ Type 3 investment materials.



1. Classify denture base resin. composition and details about compression mould technique
2 Curing cycle
3. Injection moulding technique
4 manipulation of chemically activated resin

15/25

1) → Introduction
1. The artificial replacement prosthesis is called denture
- The denture consist of a teeth portion which is embedded into the gingival portion
This gingival portion is called denture base
- The substances or materials used to fabricate denture base is called denture base materials.

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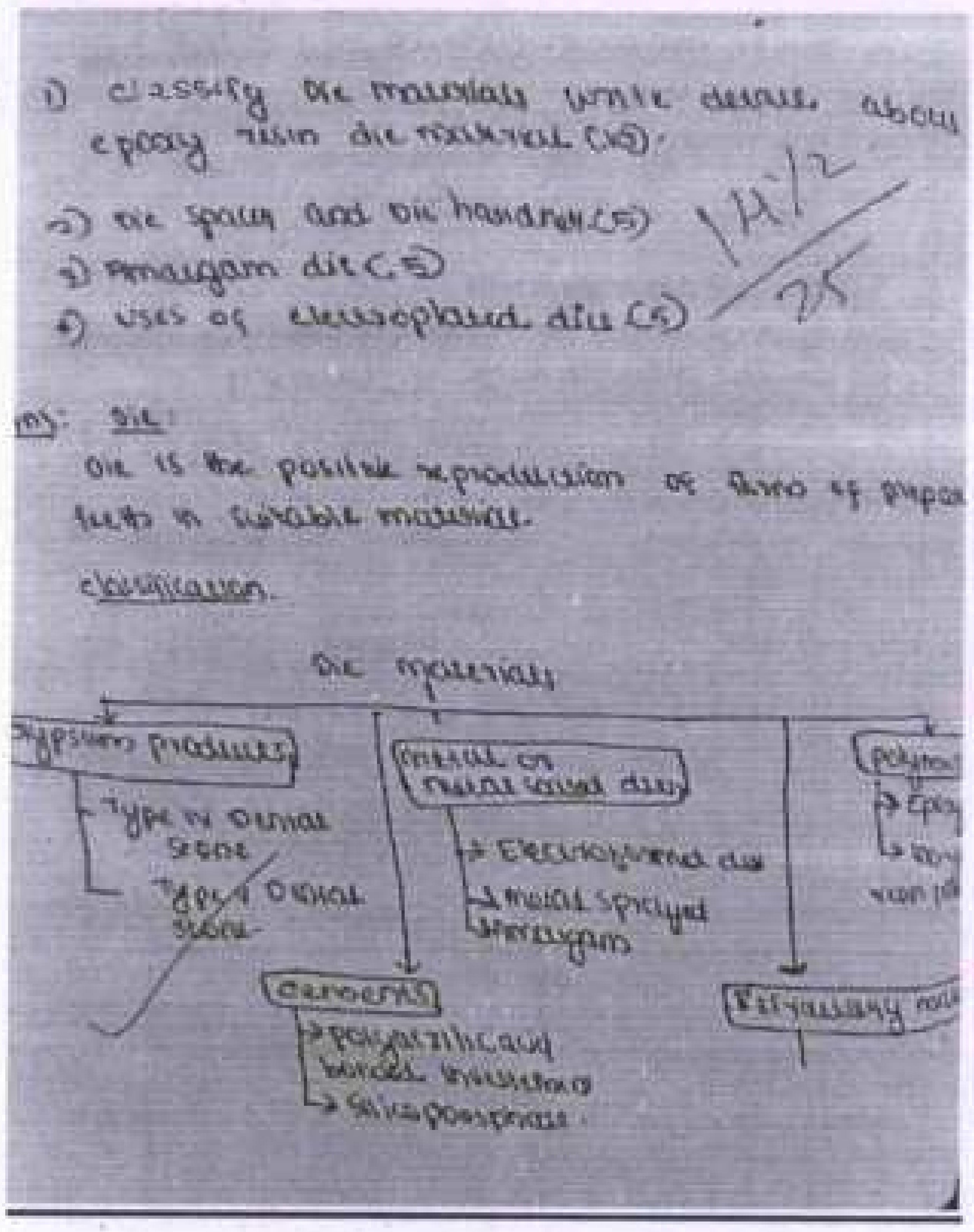


1) classify die materials write detail about epoxy resin die material (10).
2) die spacer and die hardener (5)
3) Amalgam die (5)
4) uses of electroplated die (5)

14½/25

Ans: Die:
Die is the positive reproduction of form of prepared teeth in suitable material.

classification.

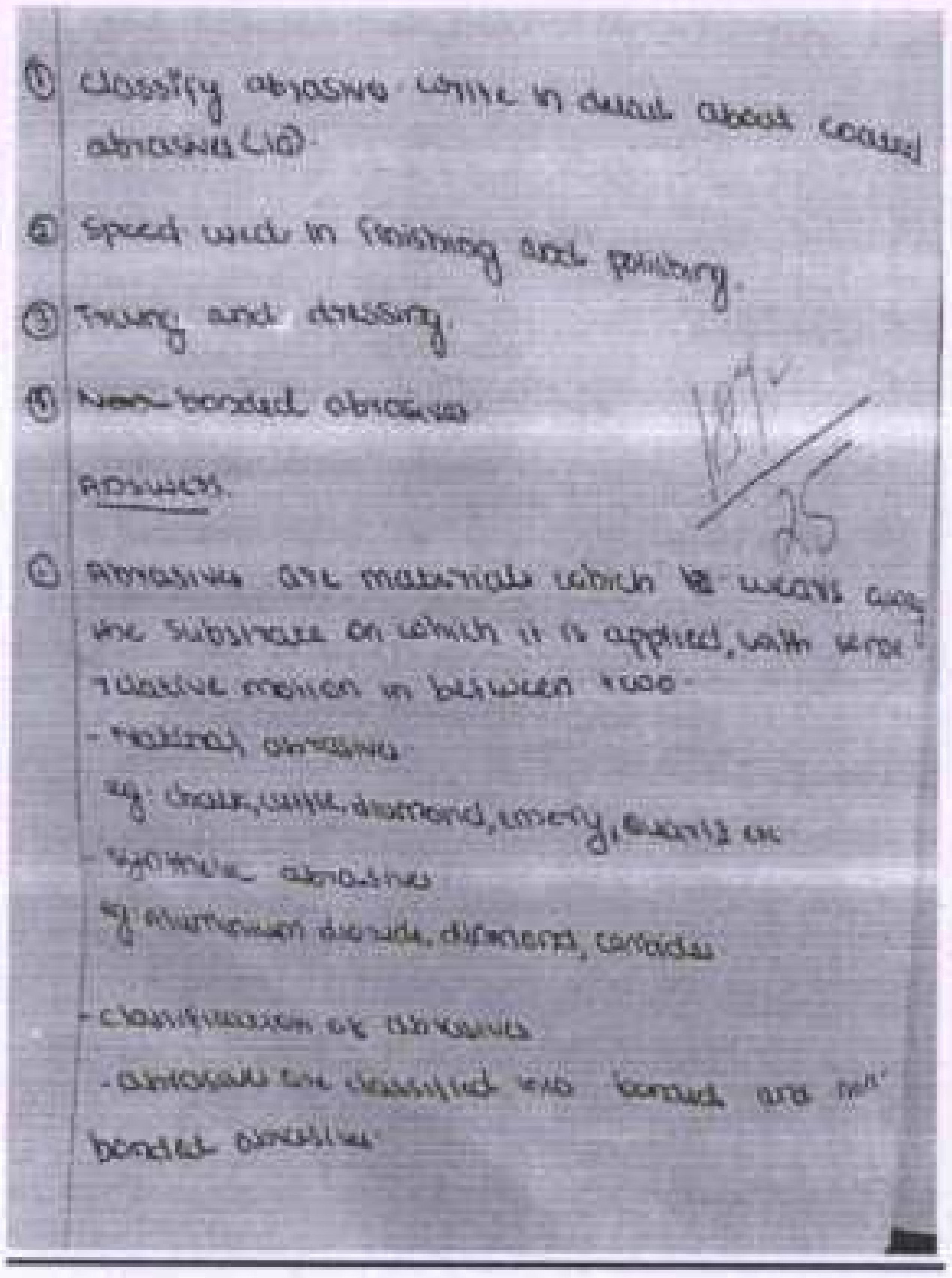
Die materials
Gypsum products
- Type IV Dental stone
- Type V Dental stone

Metal or metal coated dies
- → Electroformed die
- → metal sprayed
- amalgam

polymers
- → Epoxy
- → [illegible]

cements
- → polyacrylic acid bonded investment
- → Silicophosphate

Refractory materials



① classify abrasive write in detail about coated abrasives (10)
② Speed used in finishing and polishing.
③ Truing and dressing.
④ Non-bonded abrasives

18½/25

Answer.

① Abrasives are materials which wears away the substrate on which it is applied, with some relative motion in between two.
- Natural abrasives
eg: chalk, cuttle, diamond, emery, quartz etc
- Synthetic abrasives
eg: aluminium oxide, diamond, carbides
- classification of abrasives
- abrasives are classified into bonded and non bonded abrasives.

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MODULE	TOPIC	DATE
MODULE -1	-STRUCTURE OF MATTER -IMPRESSION MATERIALS -GYPSUM PRODUCTS -DIE AND DIE MATERIALS	9/10/23
MODULE -2	-DENTAL POLYMERS -DENTURE BASE RESINS -FINISHING AND POLISHING -DENTAL IMPLANT BIO MATERIALS	1/11/23
MODULE 3	--CASTING INVESTMENTS -CASTING PROCEDURES -DENTAL CERAMICS	19/11/23
MODEL EXAM	ALL TOPICS	9/12/23

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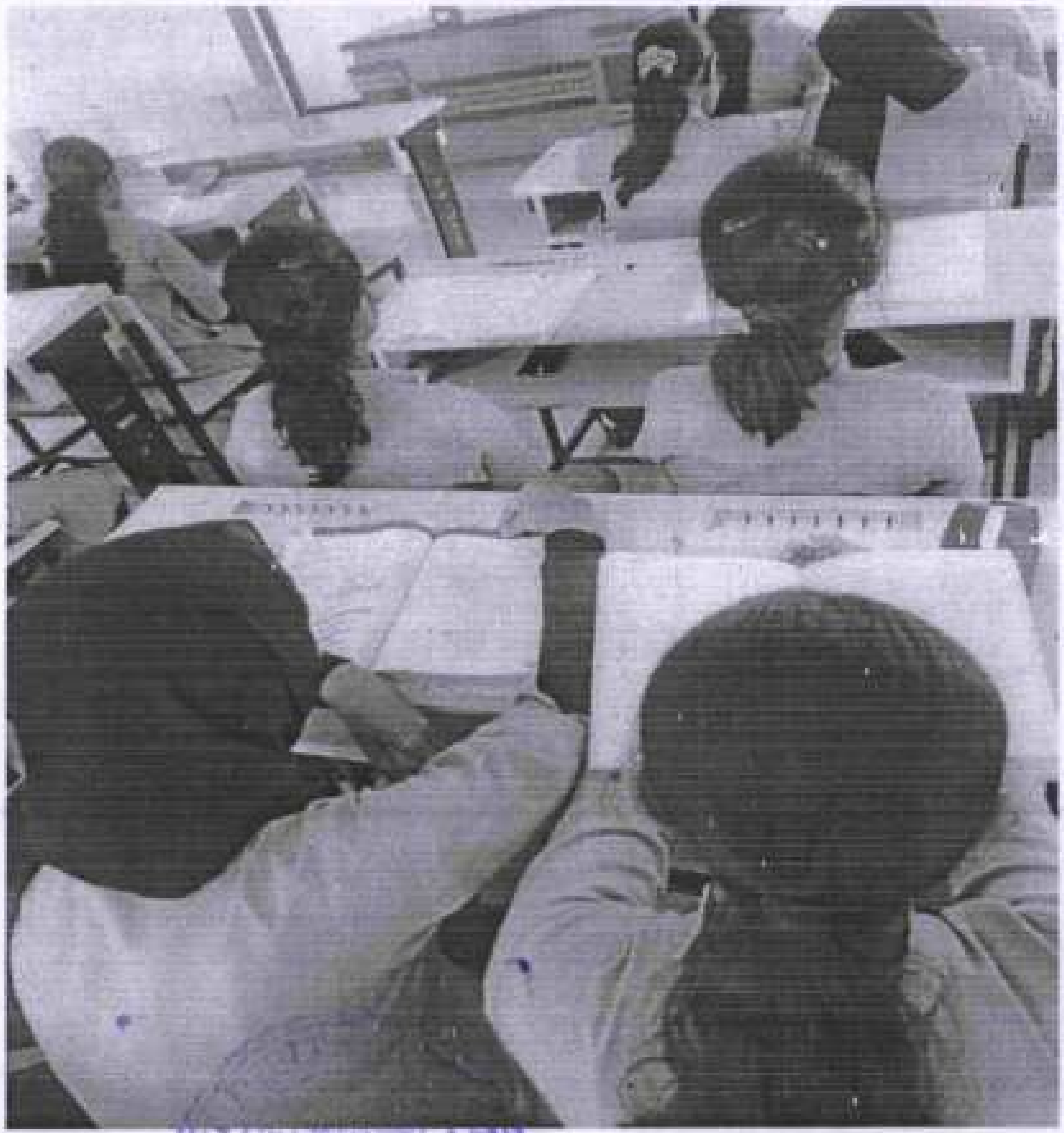

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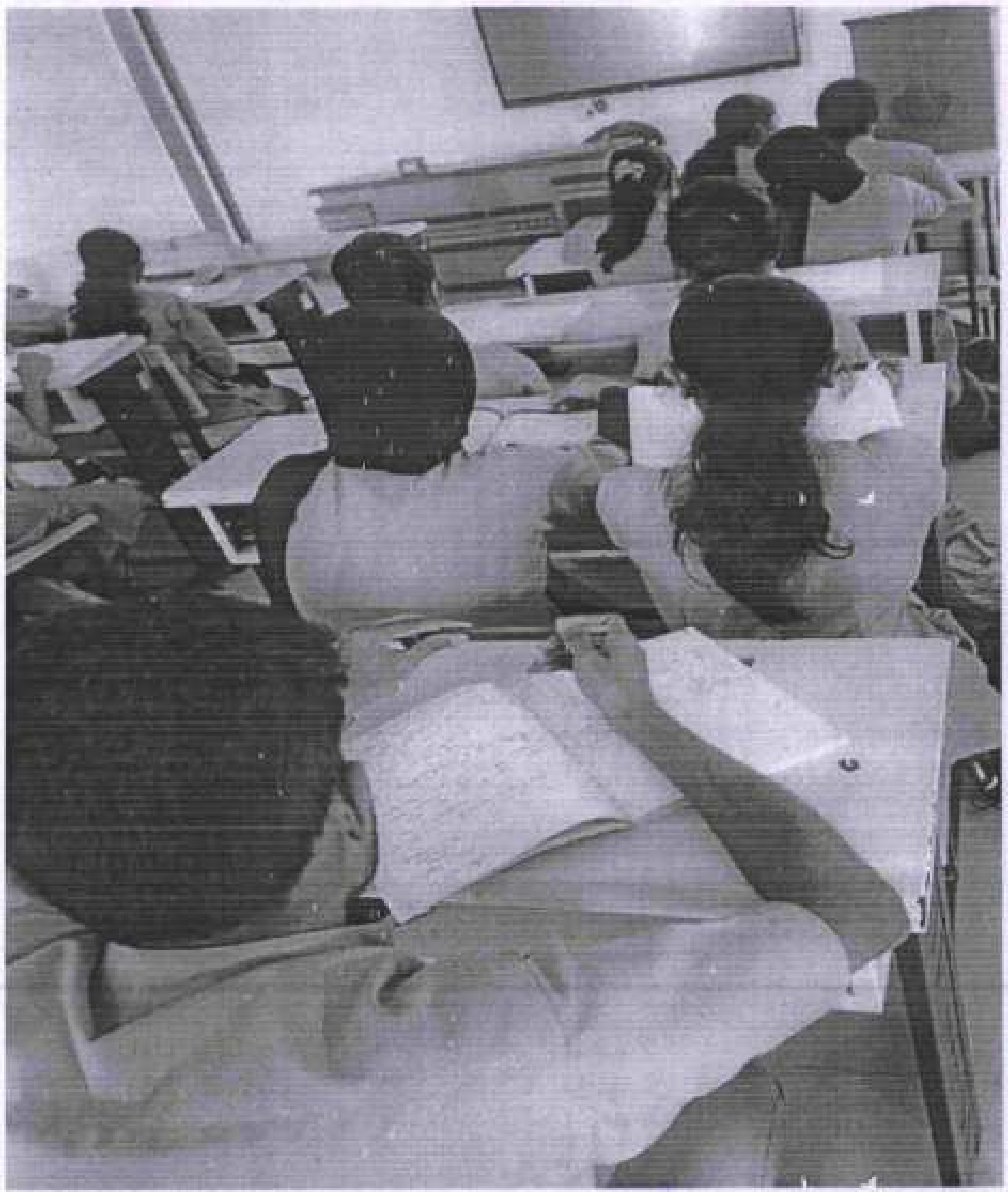

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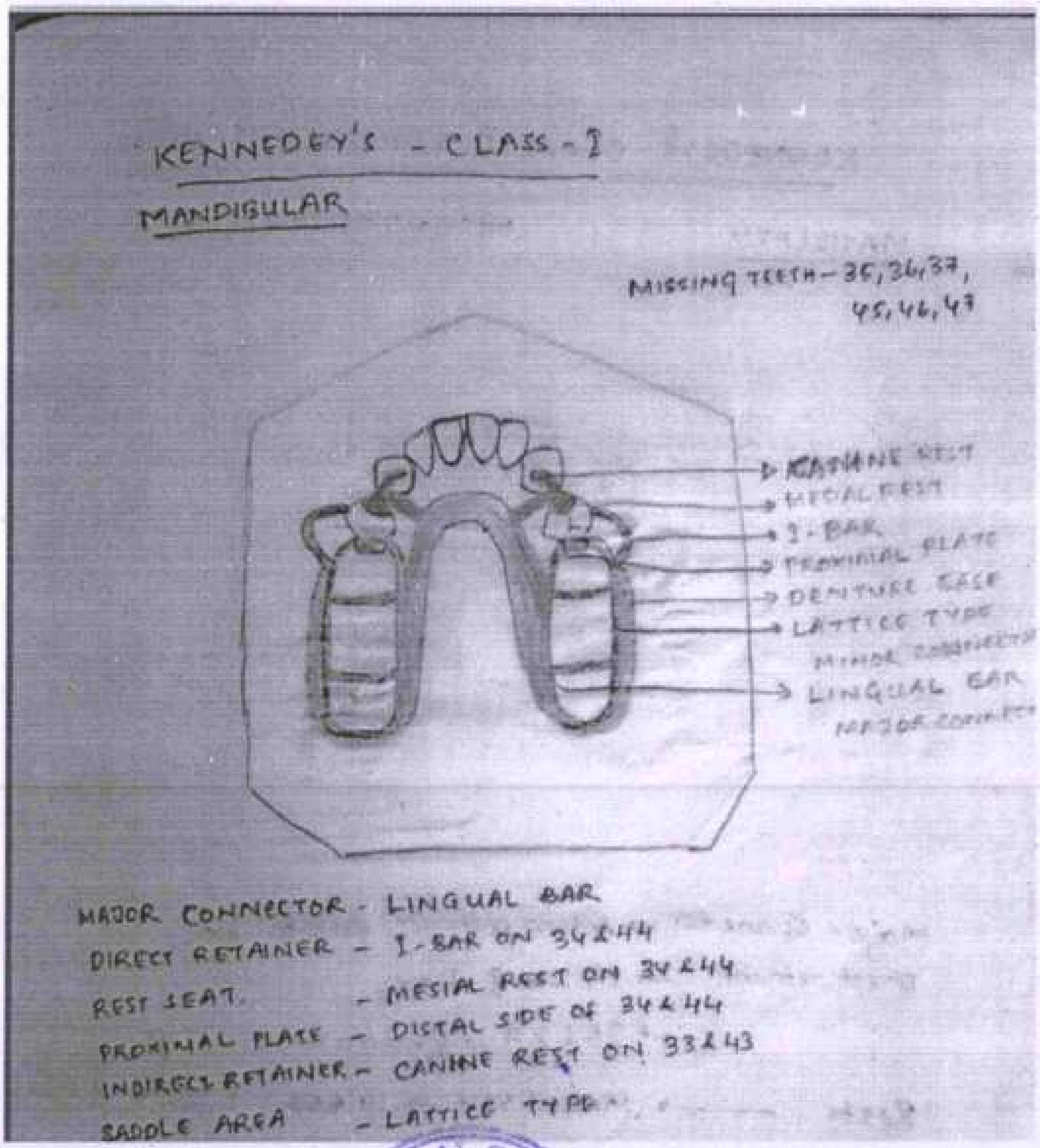

KENNEDEY'S - CLASS - I

MANDIBULAR

MISSING TEETH - 35, 36, 37,
45, 46, 47

CANINE REST
MESIAL REST
I - BAR
PROXIMAL PLATE
DENTURE BASE
LATTICE TYPE MINOR CONNECTOR
LINGUAL BAR MAJOR CONNECTOR

MAJOR CONNECTOR - LINGUAL BAR
DIRECT RETAINER - I-BAR ON 34 & 44
REST SEAT. - MESIAL REST ON 34 & 44
PROXIMAL PLATE - DISTAL SIDE OF 34 & 44
INDIRECT RETAINER - CANINE REST ON 33 & 43
SADDLE AREA - LATTICE TYPE

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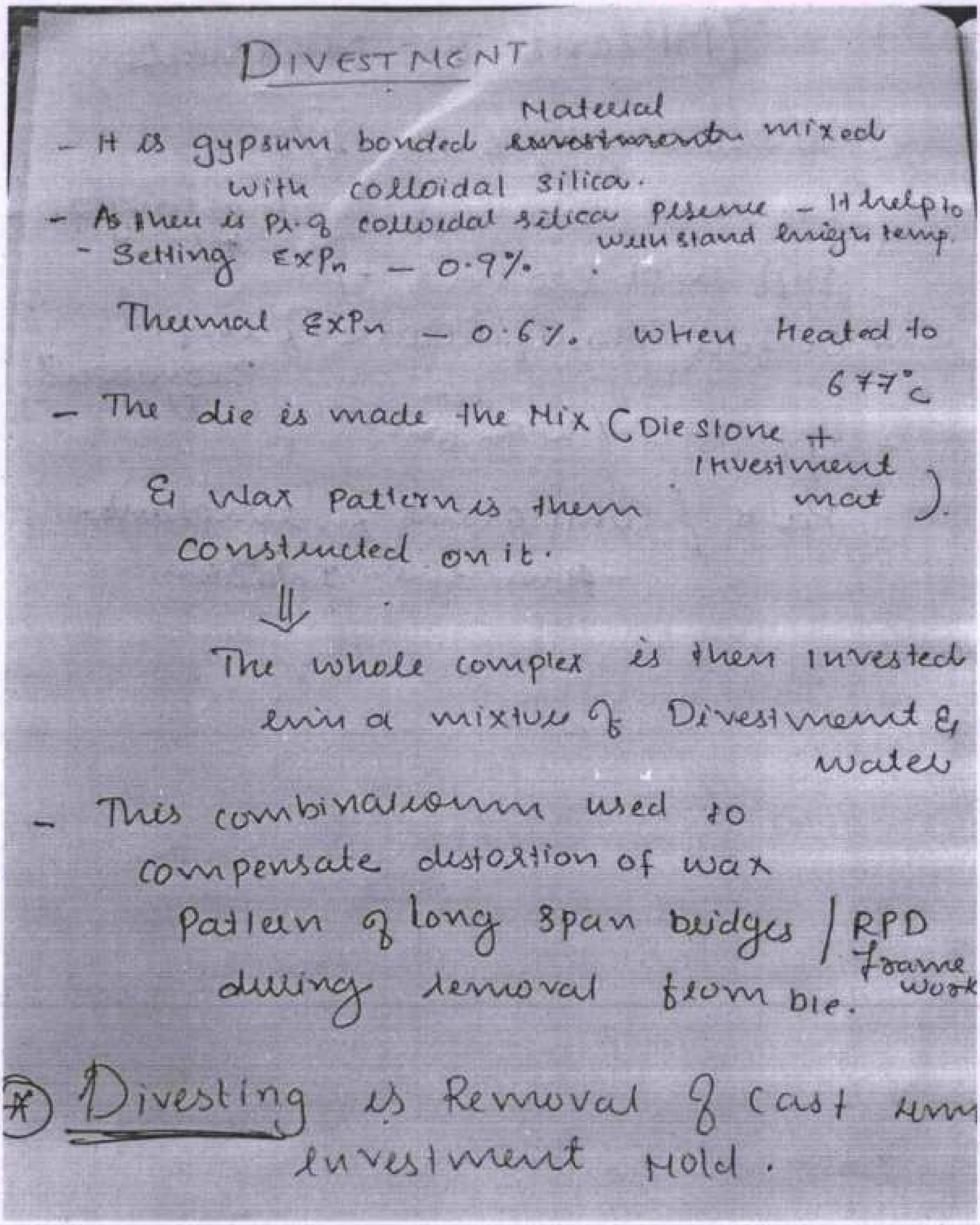

DIVESTMENT

- It is gypsum bonded ~~investment~~ Material mixed with colloidal silica.
- As there is pr. of colloidal silica presence - It helps to withstand high temp.
- Setting ExPn - 0.9%.

Thermal ExPn - 0.6%. when Heated to 677°C

- The die is made the Mix (Die stone + Investment mat).

& Wax pattern is then constructed on it.

⇓

The whole complex is then invested in a mixture of Divestment & water

- This combination used to compensate distortion of wax pattern of long span bridges / RPD frame work during removal from Die.

(*) Divesting is Removal of cast from investment Mold.

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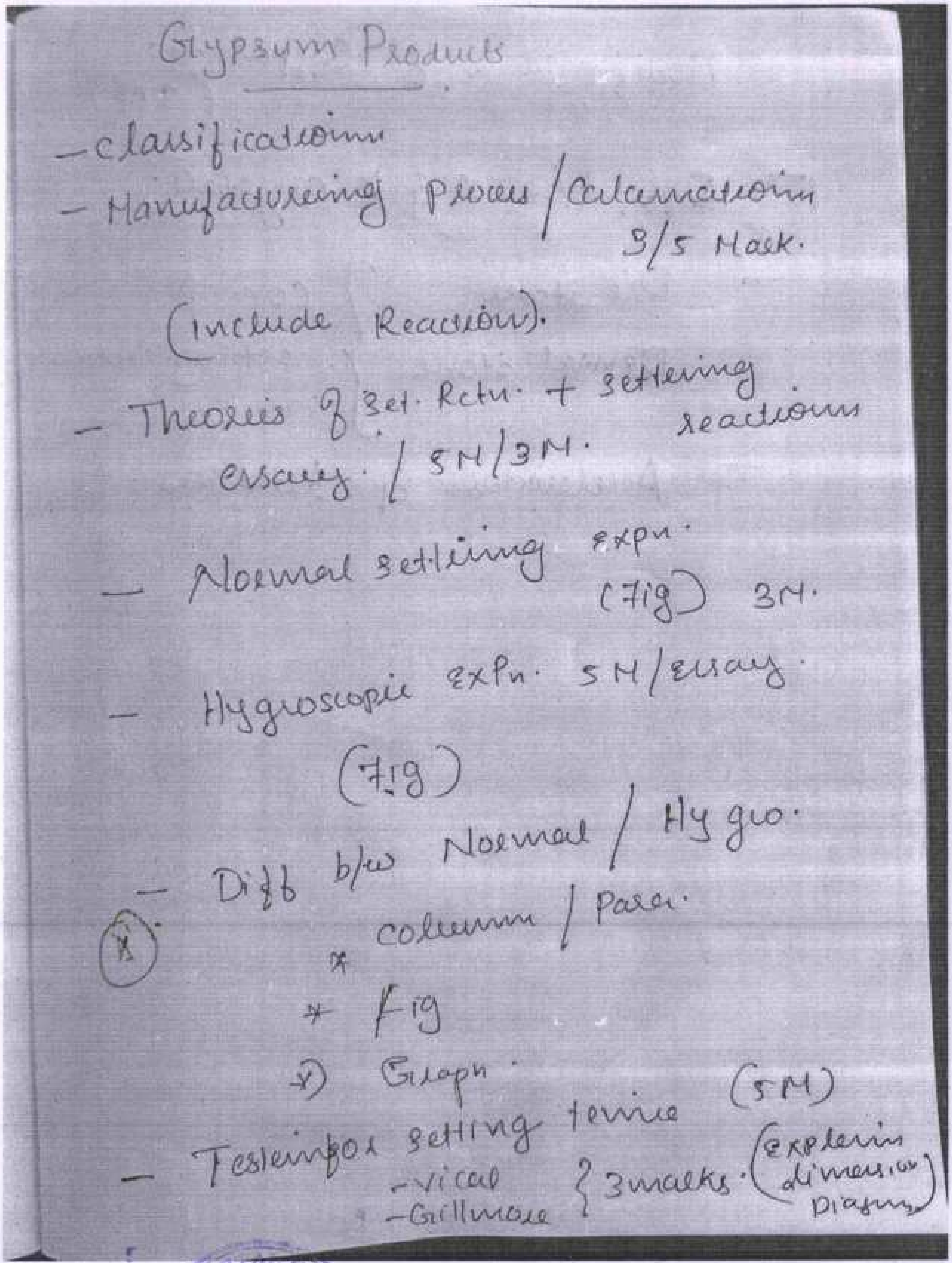

Gypsum Products

- classification
- Manufacturing process / Calcination 3/5 Mark.

(include Reaction).

- Theories of set. Rctn. + setting reactions essay / 5M/3M.
- Normal setting expn. (Fig) 3M.
- Hygroscopic expn. 5M/essay. (Fig)
- Diff b/w Normal / Hygro.
  - * column / Para.
  - * Fig
  - * Graph
- Tests for setting time (5M)
  - Vicat
  - Gillmore } 3marks. (explain dimension Diagram)

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DEPARTMENT OF PROSTHODONTICS
KMCT DENTAL COLLEGE
2ND YEAR BDS
DENTAL MATERIALS - QUESTION BANK

STRUCTURE OF MATTER

1) DIFFERENCE BETWEEN CRYSTALLINE AND NON CRYSTALLINE STRUCTURE (SE)
2) WETTABILITY, WETTING ANGLE (SE/SN)
3) DIFFERENCE BETWEEN ADHESION AND COHESION (SE/SN)

POLYMERS IN DENTISTRY

1) DIFFERENCE BETWEEN ADDITION POLYMERISATION REACTION AND CONDENSATION POLYMERISATION REACTION (SN/SE)
2) CLASSIFICATION OF DENTURE BASE MATERIALS. CHEMICAL STAGES OF POLYMERISATION (LONG ESSAY)
3) DENTURE LINERS (SE)
4) MAXILLOFACIAL PROSTHETIC MATERIAL (SE)
5) DENTURE ADHESIVES (SE/SN)

DENTURE BASE MATERIALS

1) CLASSIFICATION OF DENTURE BASE RESINS. (PART OF LONG ESSAY)
2) COMPOSITION OF HEAT CURE ACRYLIC RESIN. WRITE IN DETAIL ABOUT COMPRESSION MOLDING TECHNIQUE (LONG ESSAY)
3) COMPOSITION OF LIGHT CURE ACRYLIC RESIN (PART OF LONG ESSAY OR SE)
4) COMPOSITION OF SELF CURE ACRYLIC RESIN (PART OF LONG ESSAY OR SE)
5) COLD MOLD SEAL/ SEPERATING MEDIUM(SE/SN)
6) PHYSICAL STAGES OF POLYMERISATION OF HEAT CURE ACRYLIC (PART OF LONG ESSAY)
7) CURING CYCLE (SE/SN)
8) INJECTION MOLDING TECHNIQUE (SN/SE/PART OF LONG ESSAY)
9) MICROWAVE POLYMERISED PMMA (SN/SE)
10) TISSUE CONDITIONERS – CLASSIFICATION AND WRITE BRIEFLY ON EACH (SE)
11) REPAIR RESINS (SN)
12) POROSITIES IN DENTURE BASE (PART OF LONG ESSAY)
13) REINFORCED DENTURE BASE RESINS (SE)
14) FLEXIBLE DENTURES (SE/SN)
15) DENTURE CLEANSERS (SE/SN)

DENTAL IMPLANT BIOMATERIALS

1) OSSEOINTEGRATION (SE/SN)
2) CLASSIFY IMPLANT BIOMATERIALS. WRITE IN DETAIL ABOUT ANY TWO. (LONG ESSAY)
3) WRITE BRIEFLY ABOUT DIFFERENT IMPLANT BIOMATERIALS (PART OF LONG ESSAY)
4) WRITE BRIEFLY ON SURFACE MODIFICATIONS OF IMPLANT BIOMATERIALS (SE)

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DENTAL MATERIALS - QUESTION BANK

IMPRESSION MATERIALS AND TECHNIQUES

1) CLASSIFY IMPRESSION MATERIALS. WRITE COMPOSITION, SETTING REACTION, PROPERTIES, USES, ADVANTAGES AND DISADVANTAGES OF ADDITION SILICONE IMPRESSION MATERIAL (LONG ESSAY)
2) CLASSIFY IMPRESSION MATERIALS. WRITE COMPOSITION, SETTING REACTION, PROPERTIES, USES, ADVANTAGES AND DISADVANTAGES OF ZINC OXIDE EUGENOL IMPRESSION PASTE (LONG ESSAY)
3) CLASSIFY IMPRESSION MATERIALS. WRITE COMPOSITION, SETTING REACTION, PROPERTIES, USES, ADVANTAGES AND DISADVANTAGES OF ALGINATE IMPRESSION MATERIAL (LONG ESSAY)
4) CLASSIFY IMPRESSION MATERIALS. WRITE COMPOSITION, SETTING REACTION, PROPERTIES, USES, ADVANTAGES AND DISADVANTAGES OF AGAR IMPRESSION MATERIAL (LONG ESSAY)
5) CLASSIFY IMPRESSION MATERIALS. WRITE COMPOSITION, PROPERTIES, USES, ADVANTAGES AND DISADVANTAGES OF IMPRESSION COMPOUND. ADD A NOTE ON GLASS TRANSITION TEMPERATURE (LONG ESSAY)
6) CLASSIFY ZINC OXIDE EUGENOL. WRITE ITS SETTING REACTION (SN)
7) IMBIBITION AND SYNERESIS (SN)
8) MANIPULATION OF AGAR (SN/SE)
9) MODIFIED ALGINATES (SN)
10) POLY ETHER IMPRESSION MATERIAL (SN/SE)
11) CONDENSATION SILICONE IMPRESSION MATERIAL (SN)

GYPSUM

1) CLASSIFY GYPSUM PRODUCTS. WRITE IN DETAIL ON HYGROSCOPIC SETTING REACTION (LONG ESSAY)
2) MANUFACTURING PROCESS OF GYPSUM MATERIALS (SE/SN)
3) SETTING REACTION OF GYPSUM AND VARIOUS THEORIES OF SETTING REACTION (SE)
4) WRITE BRIEFLY ON TESTS FOR SETTING TIME OF GYPSUM PRODUCTS (SE)
5) METHODS TO CONTROL SETTING TIME OF GYPSUM (SE/ PART OF LONG ESSAY)
6) DIFFERENCE BETWEEN NORMAL SETTING EXPANSION AND HYGROSCOPIC SETTING EXPANSION (SE/ PART OF LONG ESSAY)
7) MODIFICATIONS OF GYPSUM (SE)

DIE AND DIE MATERIALS

1) CLASSIFY DIE MATERIALS. WRITE IN DETAIL ON ELECTROPLATED DIES (LONG ESSAY)
2) METALLIC DIES (SE)
3) EPOXY RESIN DIE MATERIALS (SN)

INVESTMENT MATERIALS

1) CLASSIFY INVESTMENT MATERIALS. WRITE THE COMPOSITION AND SETTING REACTION OF PHOSPHATE BONDED INVESTMENT MATERIAL (LONG ESSAY)
2) GYPSUM BONDED INVESTMENT MATERIAL (SE/ PART OF LONG ESSAY)

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3) COMPOSITION AND SETTING REACTION OF ETHYL SILICATE BONDED INVESTMENT MATERIAL (SE/ PART OF LONG ESSAY)
4) DIVESTMENT (SN)

CASTING PROCEDURES AND CASTING DEFECTS

1) CASTING CRUCIBLES (SN)
2) DIMENSIONS AND TECHNIQUE OF ATTACHMENT OF SPRUE (SE)
3) PARTS OF FLAME (SE/ PART OF LONG ESSAY)
4) DIFFERENCE BETWEEN DIVESTMENT AND DIVESTING (SN)
5) CASTING MACHINES (SE/ PART OF LONG ESSAY)
6) VARIOUS HEAT TREATMENTS IN CASTING PROCEDURE (SE)
7) CLASSIFY CASTING ALLOYS. ENUMERATE CASTING DEFECTS AND WRITE BRIEFLY ON ANY TWO (LONG ESSAY)
8) POROSITIES IN CASTING (SE)
9) CASTING DEFECTS (SE/ PART OF LONG ESSAY)

FINISHING AND POLISHING

1) SPEEDS USED IN FINISHING AND POLISHING(SN)
2) BONDED ABRASIVES (SE)
3) CLASSIFY ABRASIVES. WRITE IN DETAIL ABOUT COATED ABRASIVES (LONG ESSAY)
4) NON BONDED ABRASIVES (SE)
5) TRUING AND DRESSING PROCEDURE (SN)

DENTAL CERAMICS

1) DEFINE CERAMICS. CLASSIFY DENTAL CERAMICS. WRITE THE BONDING MECHANISM OF CERAMIC TO METAL (LONG ESSAY)
2) METHODS OF STRENGTHENING THE CERAMICS (SE/ PART OF LONG ESSAY)
3) WRITE THE COMPOSITION OF CERAMICS (SE)
4) INTERRUPTION OF CRACK PROPAGATION (SE)
5) PRESSABLE CERAMICS (SE)
6) CAD-CAM CERAMICS (SE)

PROPERTIES OF DENTAL MATERIALS

1) CREEP (SE/SN)
2) WRITE A NOTE ON STRESS (SE/SN)
3) STRESS- STRAIN GRAPH (SE/SN)
4) POISSON'S RATIO (SE/SN)
5) HOOKE'S LAW (SN)
6) MODULUS OF ELASTICITY (SE/SN)

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7) PROPORTIONAL LIMIT (SE/SN)
8) WRITE A NOTE ON HARDNESS TESTS (SE)
9) DUCTILITY AND MALLEABILITY (SE)
10) DIMENSIONS OF COLOUR (SE/SN)
11) TESTS FOR DUCTILITY (SN)
12) METAMERISM (SN)
13) METAMERISM AND FLOURESCENCE (SN)
14) SHADE GUIDES (SN)
15) SQUINT TEST (SN)
16) FACTORS INFLUENCING SHADE SELECTION (SN)
17) TARNISH AND CORROSION (SE/SN/ PART OF LONG ESSAY)
18) DEFINE TARNISH AND CORROSION. CLASSIFY CORROSION. WRITE BRIEFLY ON GALVANIC CORROSION (LONG ESSAY)
19) CREVICE CORROSION (SN/ SE/ PART OF LONG ESSAY)
20) ELECTROCHEMICAL CORROSION (SE)
21) PREVENTION OF CORROSION (SN/ PART OF LONG ESSAY)
22) METHODS FOR EVALUATION OF BIOCOMPATIBILITY/ BIOCOMPATIBILITY TESTS (SE)
23) ADVERSE EFFECTS OF DENTAL MATERIALS (SE/SN)

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Customized Learning Plans:

Customized learning plans are tailored educational strategies designed to meet the unique needs, strengths, interests, and goals of individual students. These plans are particularly effective in fostering engagement, enhancing learning outcomes, and supporting diverse learners.

DEPARTMENT OF PROSTHODONTICS,CROWN BRIDGE AND IMPLANTOLOGY

LESSON PLAN	
TITTLE	CASTING PROCEDURES IN PROSTHODONTICS
TEACHER	DR AKHILA S ABOOBACKER
BATCH	SECOND YEAR
DURATION	2 HOURS
DATE	10/08/202& 11/08/2023

Learning Objectives:
By the end of the lesson, students should be able to:

1. Understand the principles and steps involved in the casting process.
2. Identify the materials and equipment used in casting.
3. Demonstrate knowledge of common errors and troubleshooting in casting.
4. Correlate the casting process to prosthodontic applications.

Lesson Plan Outline

1. Introduction (15 minutes)

Objective: Provide an overview of the casting process and its importance.

- **Teaching Method**: Interactive discussion with visual aids (e.g., diagrams, videos).
- **Content**:
  - Definition of casting in prosthodontics.
  - Applications: Fabrication of crowns, bridges, removable partial dentures.
  - Importance of accuracy and precision.
- **Activity**: Icebreaker—Ask students to list common dental restorations that require casting.

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2. Materials and Equipment (20 minutes)

Objective: Familiarize students with casting materials and instruments.

- **Teaching Method**: Lecture with demonstration.
- **Content**:
  - **Wax pattern materials**: Inlay waxes.
  - **Investments**: Gypsum-bonded, phosphate-bonded investments.
  - **Casting alloys**: Types and applications (e.g., noble metals, base metals).
  - Equipment: Casting rings, burnout furnace, centrifugal casting machine.
- **Activity**: Hands-on identification of materials and equipment.

3. Step-by-Step Casting Procedure (40 minutes)

Objective: Explain the casting process in detail.

- **Teaching Method**: Guided demonstration or video tutorial.
- **Content**:
  - **Waxing**: Creating the wax pattern.
  - **Spruing**: Attaching sprues to the wax pattern.
  - **Investing**: Preparing the mold with investment material.
  - **Burnout**: Removing the wax pattern through controlled heating.
  - **Casting**: Pouring molten metal into the mold.
  - **Cooling and Recovery**: Allowing the metal to solidify and removing the cast.
  - **Finishing and Polishing**: Smoothing and refining the cast restoration.
- **Activity**: Students create a basic wax pattern and observe the spruing and investing process.

4. Common Errors and Troubleshooting (20 minutes)

Objective: Address common challenges in the casting process.

- **Teaching Method**: Group discussion and problem-solving.
- **Content**:
  - Porosity issues.
  - Incomplete casting.
  - Surface defects.
  - Methods to prevent errors.
- **Activity**: Case-based scenarios—students analyze causes of defective casts and propose solutions.

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5. Correlation with Clinical Applications (10 minutes)

Objective: Relate casting procedures to prosthodontic restorations.

- **Teaching Method**: Interactive Q&A.
- **Content**:
  - Clinical implications of accurate casting in crown and bridge work.
  - Integration into patient care.
- **Activity**: Review a clinical case with improperly cast restorations and discuss the consequences.

6. Summary and Assessment (15 minutes)

Objective: Reinforce learning and evaluate understanding.

- **Teaching Method**: Recap key points and conduct an assessment.
- **Content**:
  - Quick review of steps and materials.
  - Importance of precision in prosthodontic outcomes.
- **Assessment Options**:
  - Short quiz (multiple-choice or fill-in-the-blank).
  - Practical skill assessment (e.g., proper waxing or investing techniques).

Resources Required:

- Wax patterns, sprues, investment material.
- Casting machine, burnout furnace.
- Handouts or digital slides.

Follow-Up: Assign a task for students to practice creating wax patterns or casting a simple design.

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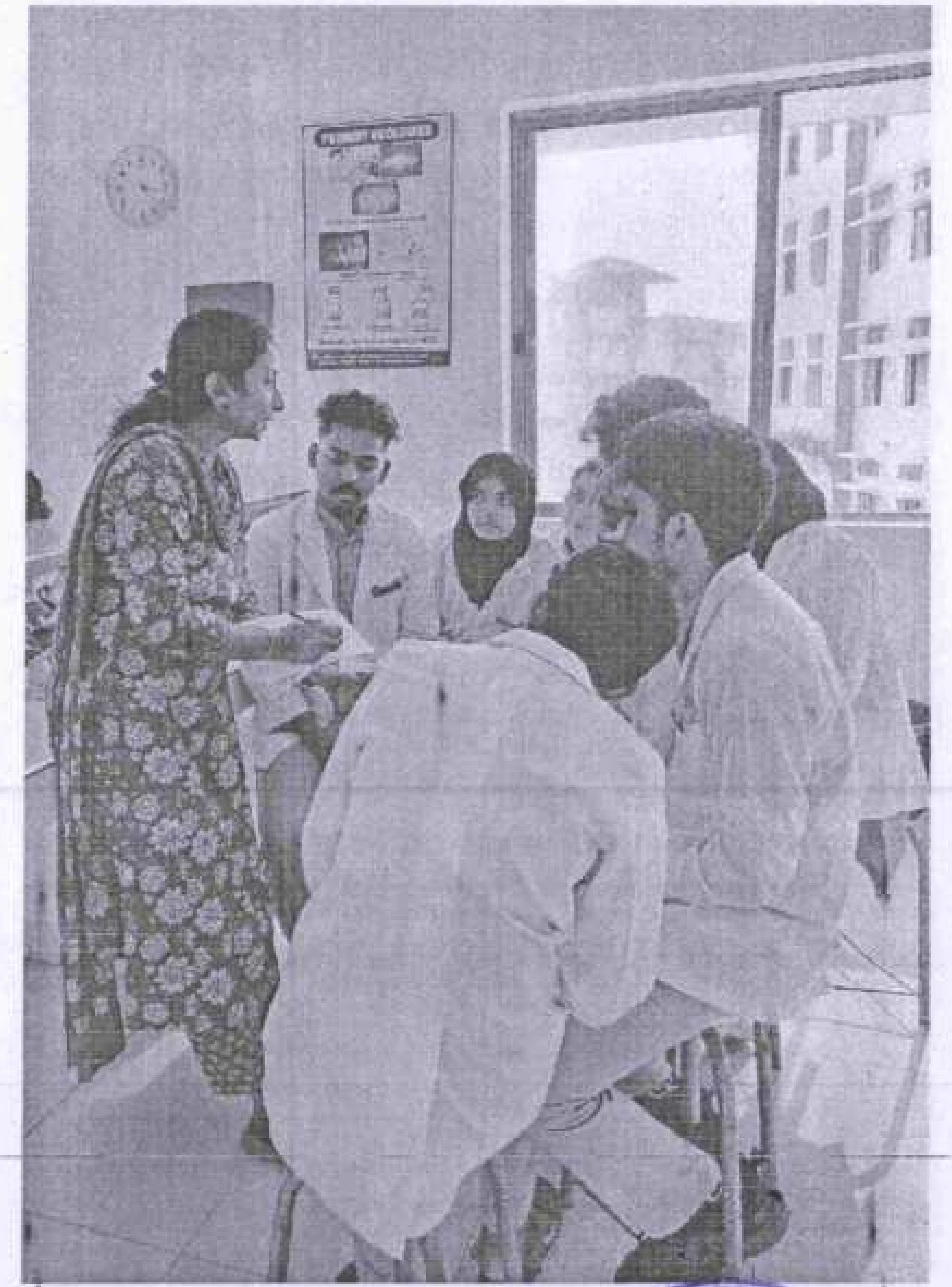
❖ DETAILS OF SPECIAL PROGRAMS FOR SLOW PERFORMERS

- **Special Classes with Subject Experts**: Slow performers attend additional classes conducted by subject experts. These sessions focus on clarifying concepts, addressing doubts, and providing extra guidance on challenging topics.



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- **Encouragement of Collaborative Study with Advanced Learners**: Collaborative study groups are formed, pairing slow performers with high-achieving peers. This fosters a supportive learning environment where advanced learners mentor and assist their peers in understanding complex subjects.

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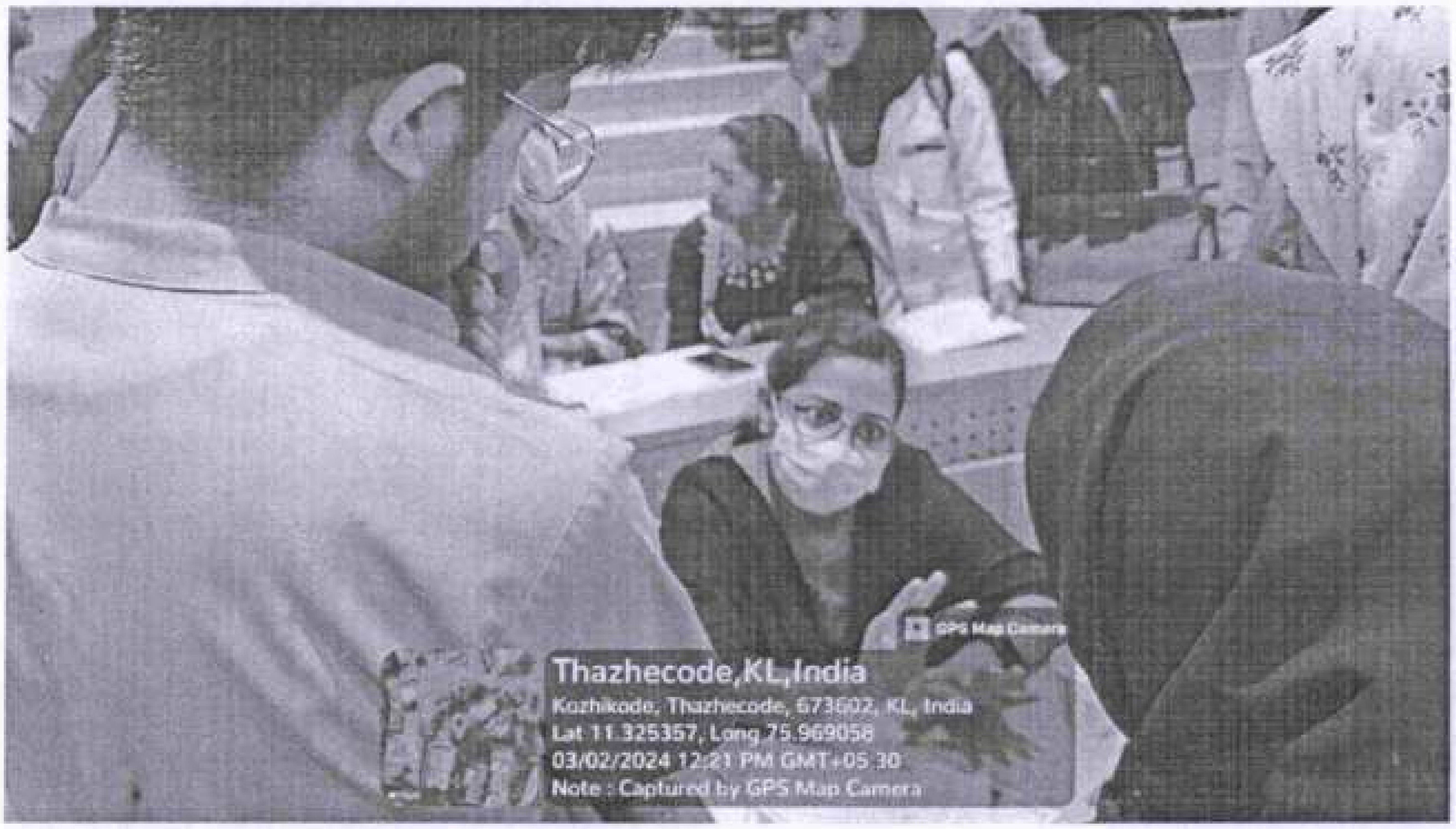
- **Periodical meeting with students and parents together by the subject expert:**

This improves learning outcome and reduces study-related stress, and provide guidance on effective learning techniques and improves mental well-being.



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Kozhikode, Thazhecode, 673602, KL, India
Lat 11.325357, Long 75.969058
03/02/2024 12:21 PM GMT+05:30
Note : Captured by GPS Map Camera

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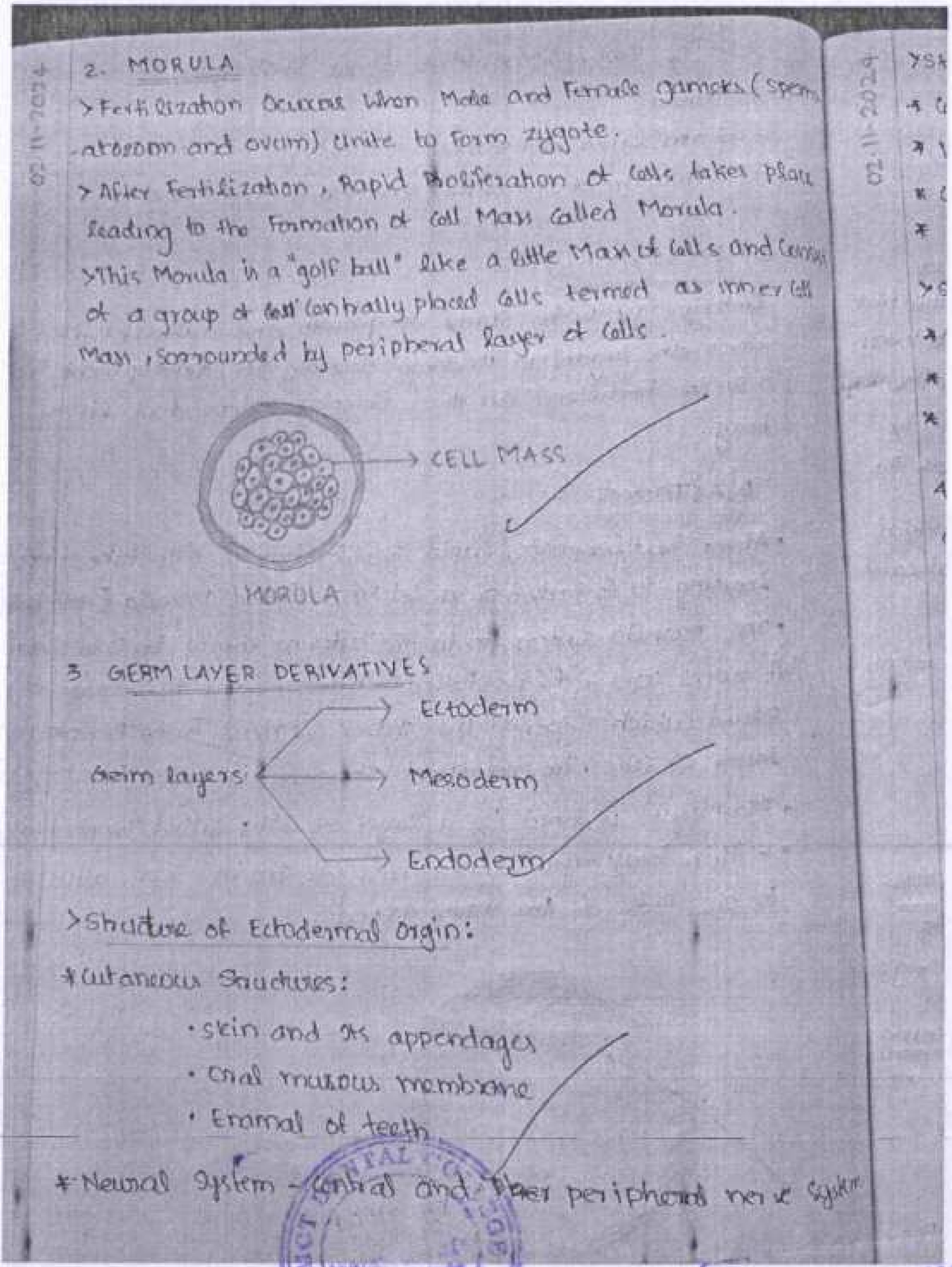
- **Periodical Assessments with Class Tests and Evaluation:**

Regular class tests are conducted to track progress, and make the student understand the shortcomings in the exam preparation.



02-11-2024

2. MORULA

>Fertilization Occurs When Male and Female gamets (spermatozoon and ovum) unite to form zygote.

>After Fertilization, Rapid Proliferation of cells takes place leading to the Formation of cell Mass called Morula.

>This Morula is a "golf ball" like a little Mass of cells and consists of a group of ~~cell~~ centrally placed cells termed as inner cell Mass, surrounded by peripheral layer of cells.

MORULA

3 GERM LAYER DERIVATIVES

>Structure of Ectodermal origin:

*Cutaneous Structures:

- skin and its appendages
- Oral mucous membrane
- Enamel of teeth

*Neural System - Central and ~~their~~ peripheral nerve system

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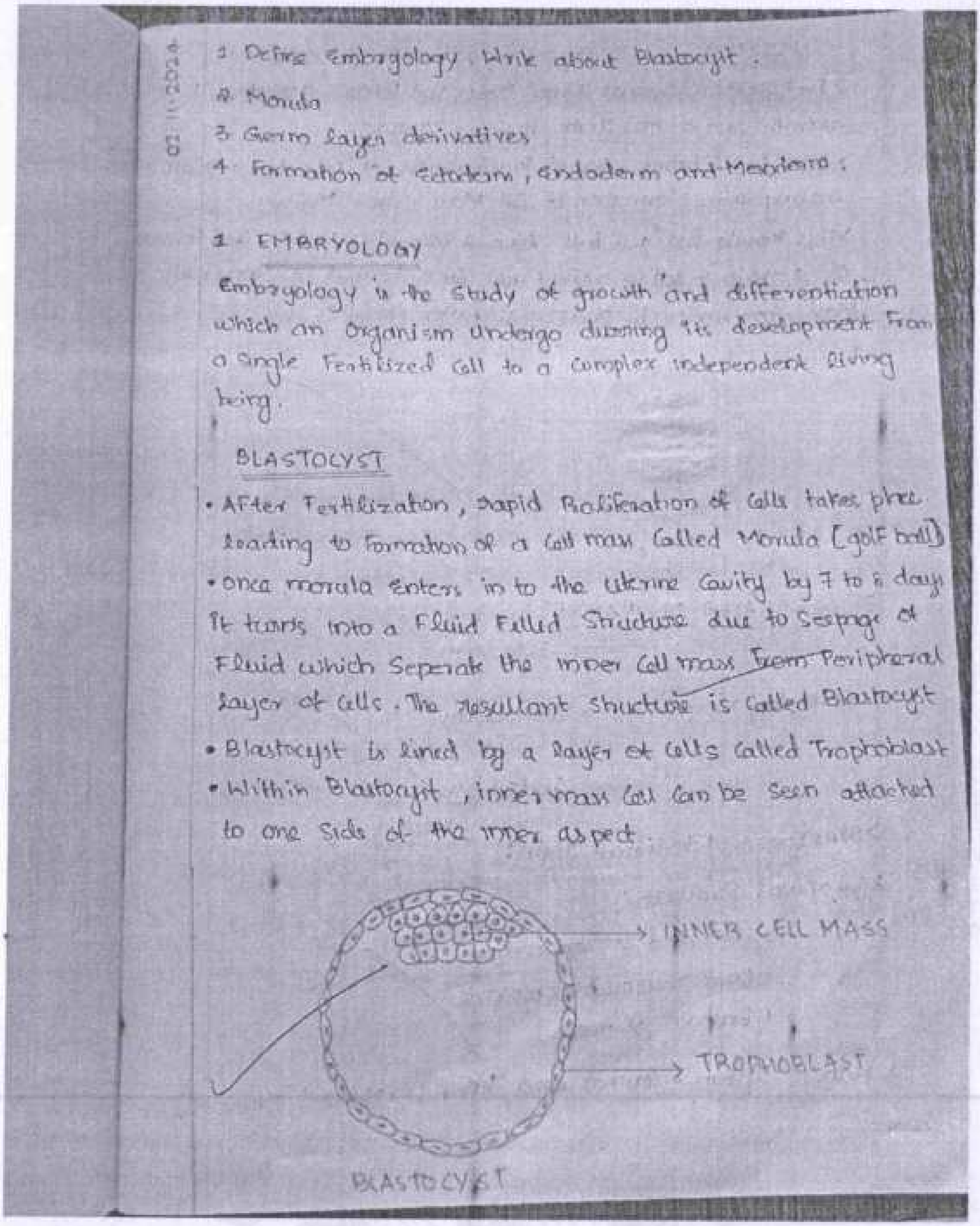

07-11-2024

1 Define Embryology. Write about Blastocyst.
2 Morula
3 Germ layer derivatives
4 Formation of Ectoderm, Endoderm and Mesoderm;

1. EMBRYOLOGY

Embryology is the study of growth and differentiation which an organism undergo during its development from a single fertilized cell to a complex independent living being.

BLASTOCYST

- After fertilization, rapid proliferation of cells takes place leading to formation of a cell mass called Morula [golf ball]
- once morula enters in to the uterine cavity by 7 to 8 days it turns into a fluid filled structure due to seepage of fluid which seperate the inner cell mass from peripheral layer of cells. The resultant structure is called Blastocyst
- Blastocyst is lined by a layer of cells called Trophoblast
- Within Blastocyst, inner mass cell can be seen attached to one side of the inner aspect.

BLASTOCYST

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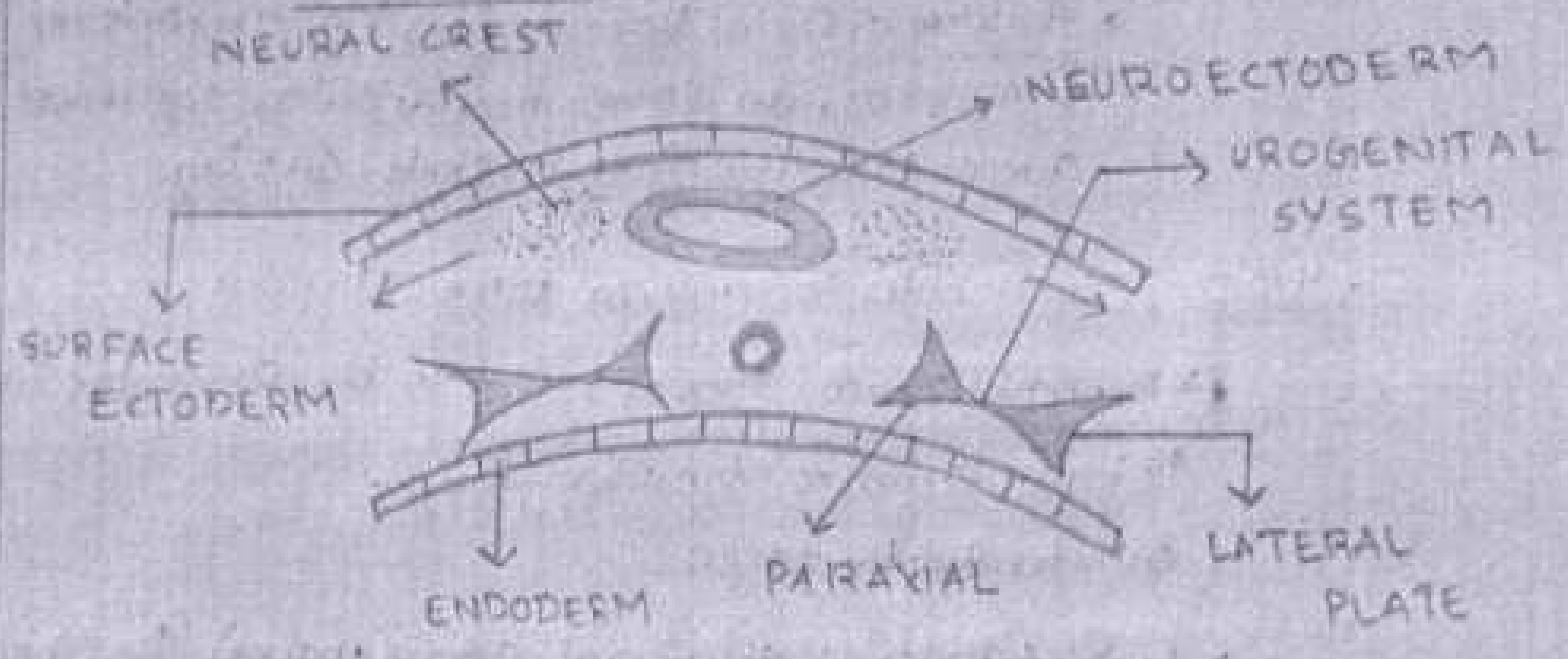
> Due to defective migration of neural crest cells, a developmental disorder called Treacher Collin Syndrome which manifest with various craniofacial developmental defects.

DERIVATIVES OF GERM LAYERS AND NEURAL CREST



2. Derivatives of Branchial arch :

> There are six Pharyngeal arches. 1st arch is Mandibular arch which plays a very important role in craniofacial development. 2nd arch is hyoid arch and 5th arch disappears soon after formation. 3, 4, 6 arches do not have specific names.

1. MANDIBULAR : Contributes to Facial Prominence and anterior tongue mucosa.

* Branchial pouch : Tubotympanic recess, which form auditory tube and middle ear cavity
· obliterated by tongue.

* Arch Arteries : external carotid and Maxillary arteries

* Muscles : Muscles of Mastication [Temporal Masseter and Pterygoids] Mylohyoid, digastric, Tensor Veli Palatini, Tensor Tympani (origin : somitomere 4)

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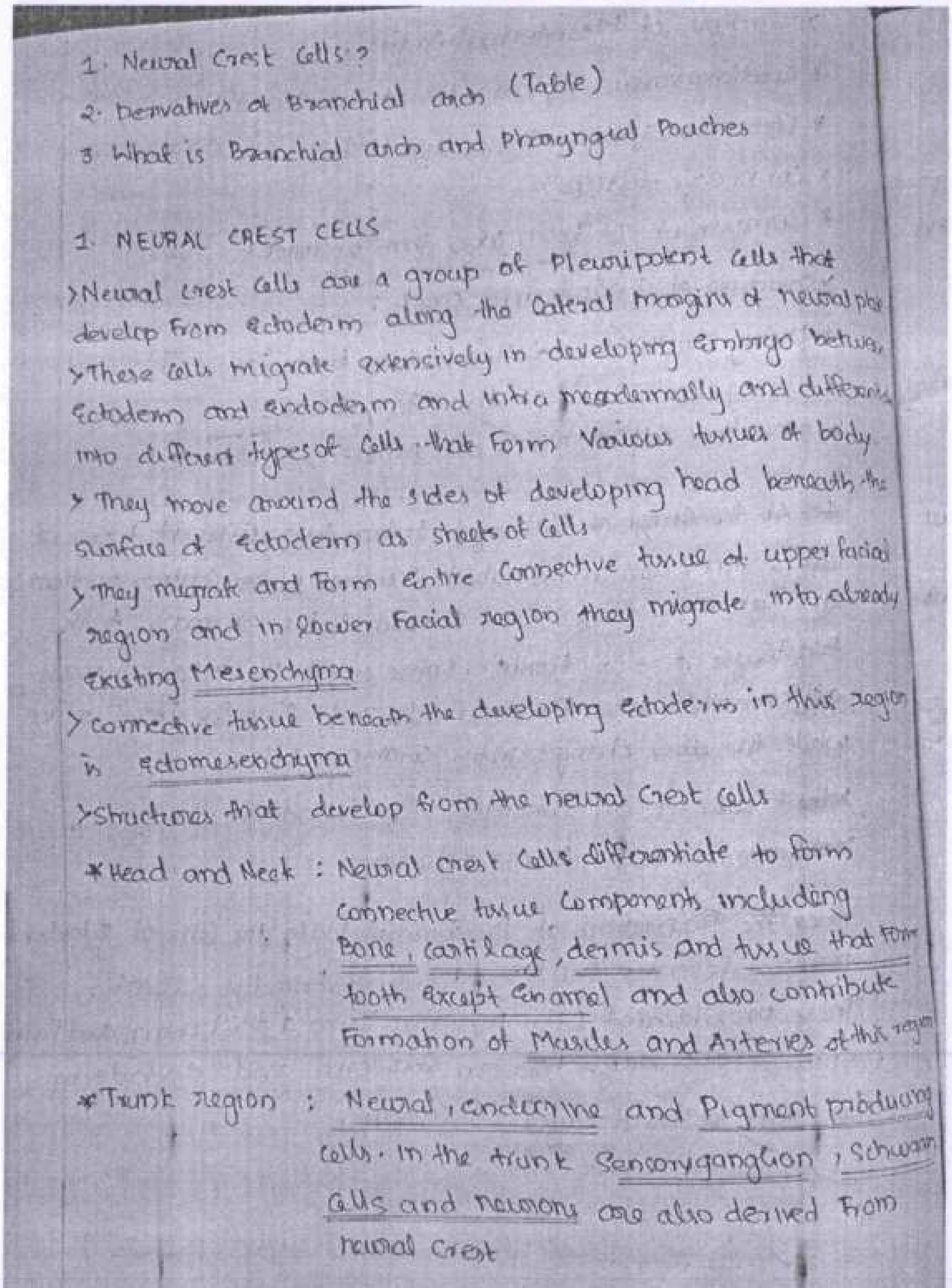

1. Neural Crest Cells ?
2. Derivatives of Branchial arch (Table)
3. What is Branchial arch and Pharyngeal Pouches

1. NEURAL CREST CELLS

>Neural crest cells are a group of Pleuripotent cells that develop from ectoderm along the lateral margins of neural plate

>These cells migrate extensively in developing embryo between ectoderm and endoderm and intra mesodermally and differentiate into different types of cells that form various tissues of body

> They move around the sides of developing head beneath the surface of ectoderm as sheets of cells

> They migrate and form entire connective tissue of upper facial region and in lower facial region they migrate into already existing Mesenchyma

> connective tissue beneath the developing ectoderm in this region is ectomesenchyma

>Structures that develop from the neural crest cells

* Head and Neck : Neural crest cells differentiate to form connective tissue components including Bone, cartilage, dermis and tissue that form tooth except enamel and also contribute formation of Muscles and Arteries of this region

* Trunk region : Neural, endocrine and Pigment producing cells. In the trunk Sensoryganglion, Schwann cells and neurons are also derived from neural crest

> Neural crest have significant role in Cranio facial development and Formation of Teeth

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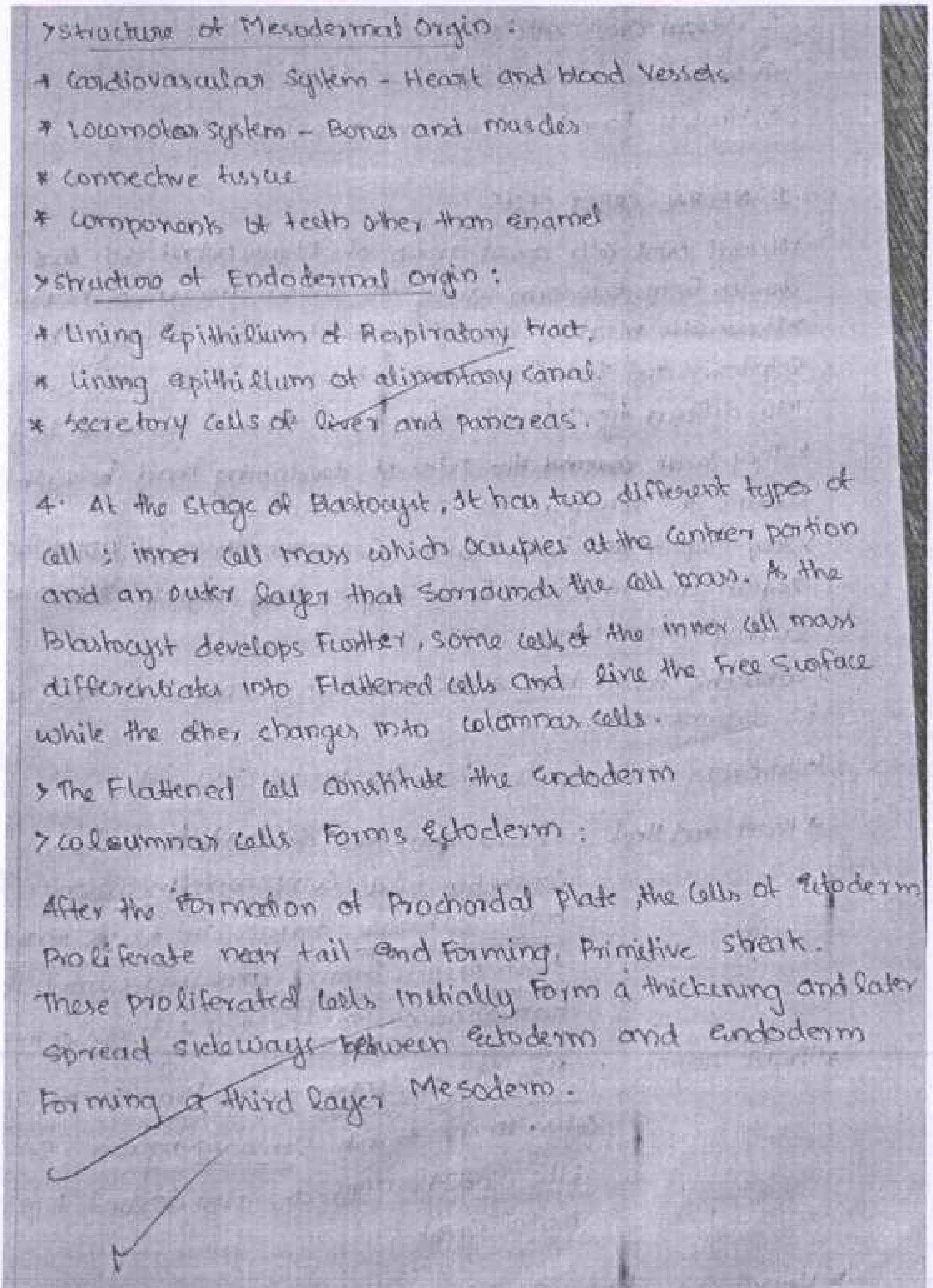

>structure of Mesodermal Orgin :

* Cardiovascular Sytem - Heart and blood Vessels
* Locomotor system - Bones and muscles
* connective tissue
* components of teeth other than enamel

>structure of Endodermal orgin :

* Lining Epithilium of Respiratory tract.
* lining epithilium of alimentary canal
* secretory cells of liver and pancreas.

4. At the stage of Blastocyst, It has two different types of cell ; inner cell mass which occupies at the center portion and an outer layer that surrounds the cell mass. As the Blastocyst develops Further, some cells of the inner cell mass differentiate into Flattened cells and line the free surface while the other changes into colomnar cells.

>The Flattened cell constitute the endoderm

>coloumnar cells Forms Ectoderm :

After the Formation of Prochordal plate, the cells of Ectoderm Proliferate near tail and Forming Primitive streak. These proliferated cells initially Form a thickening and later spread sideways between ectoderm and endoderm Forming a third layer Mesoderm.

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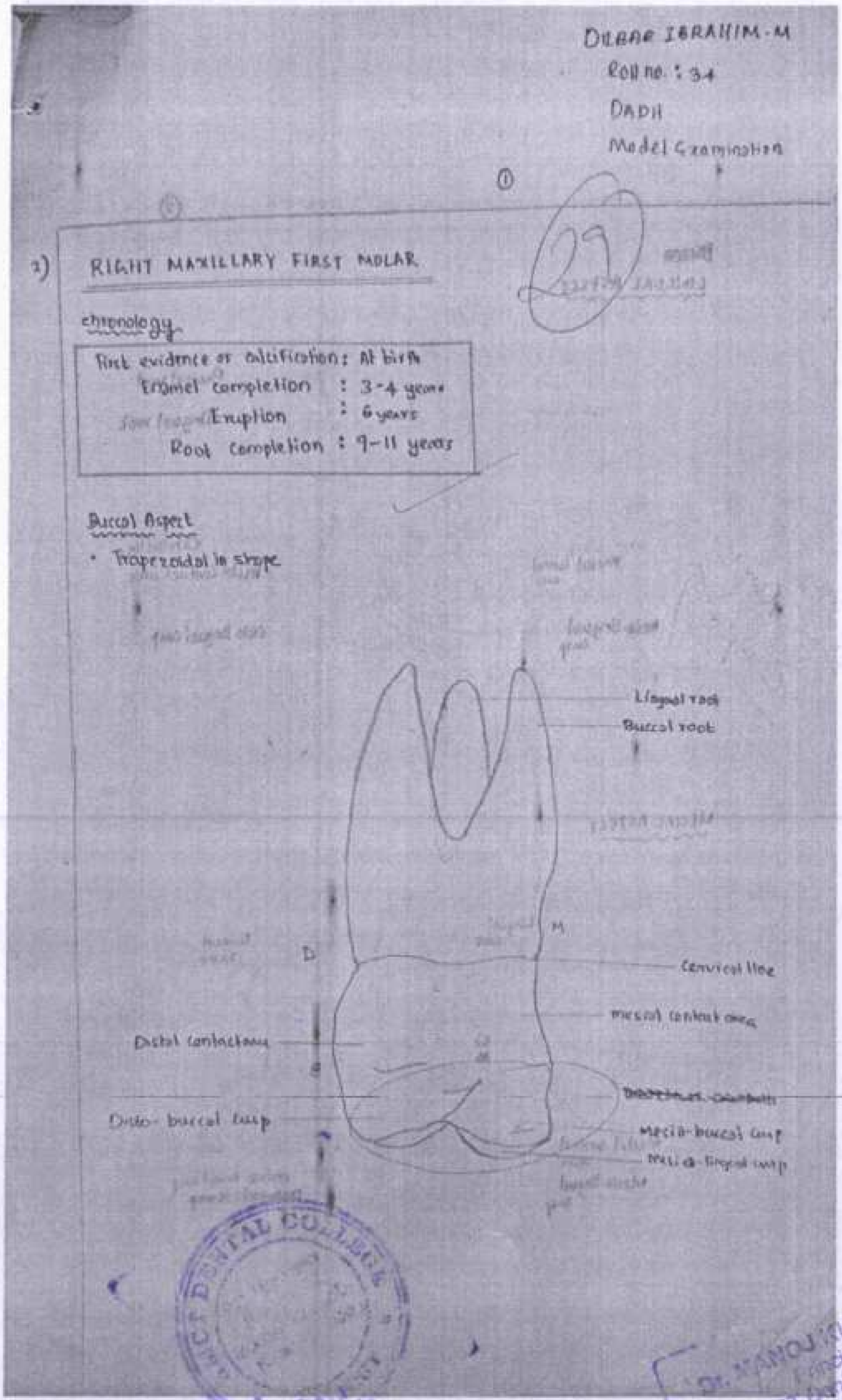
- **Revision Tests Before University Examinations**: Conduction of special revision sessions and tests in university pattern are organized by subject expert before university exams. This aids in practicing time management and improves the self confidence to appear for university exams.



DILBAR IBRAHIM-M
Roll no. : 34
DADH
Model Examination

①

29

1) RIGHT MAXILLARY FIRST MOLAR

chronology

First evidence of calcification : At birth
Enamel completion : 3-4 years
Eruption : 6 years
Root completion : 9-11 years

Buccal Aspect

- Trapezoidal in shape

Lingual root
Buccal root
D
M
Cervical line
mesial contact area
Distal contact area
[illegible]
Disto-buccal cusp
Mesio-buccal cusp
Mesio-lingual cusp

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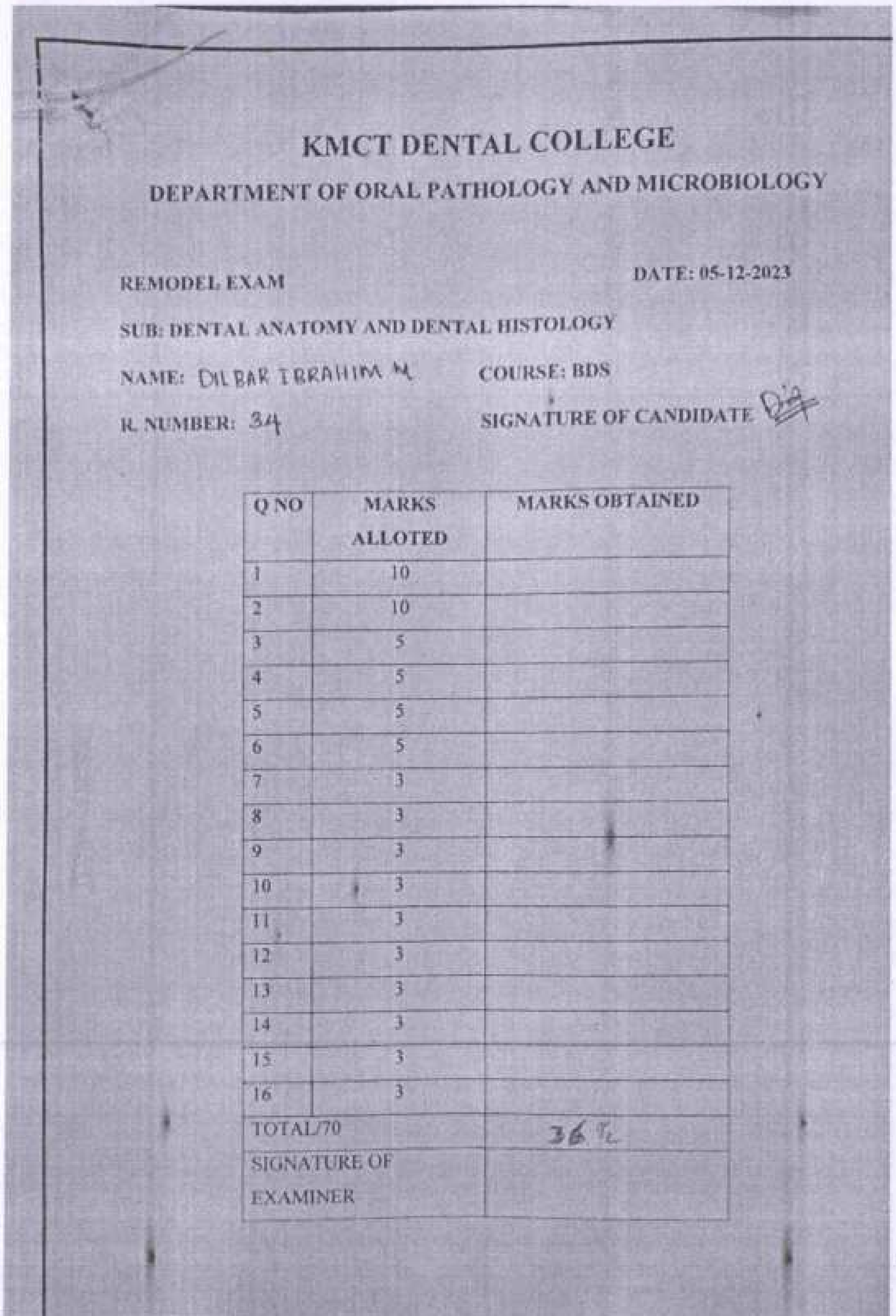

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REMODEL EXAM

DATE: 05-12-2023

SUB: DENTAL ANATOMY AND DENTAL HISTOLOGY

NAME: DILBAR IBRAHIM M

COURSE: BDS

R. NUMBER: 34

SIGNATURE OF CANDIDATE

Q NO	MARKS ALLOTED	MARKS OBTAINED
1	10	
2	10	
3	5	
4	5	
5	5	
6	5	
7	3	
8	3	
9	3	
10	3	
11	3	
12	3	
13	3	
14	3	
15	3	
16	3	
TOTAL/70		36 ½
SIGNATURE OF EXAMINER		

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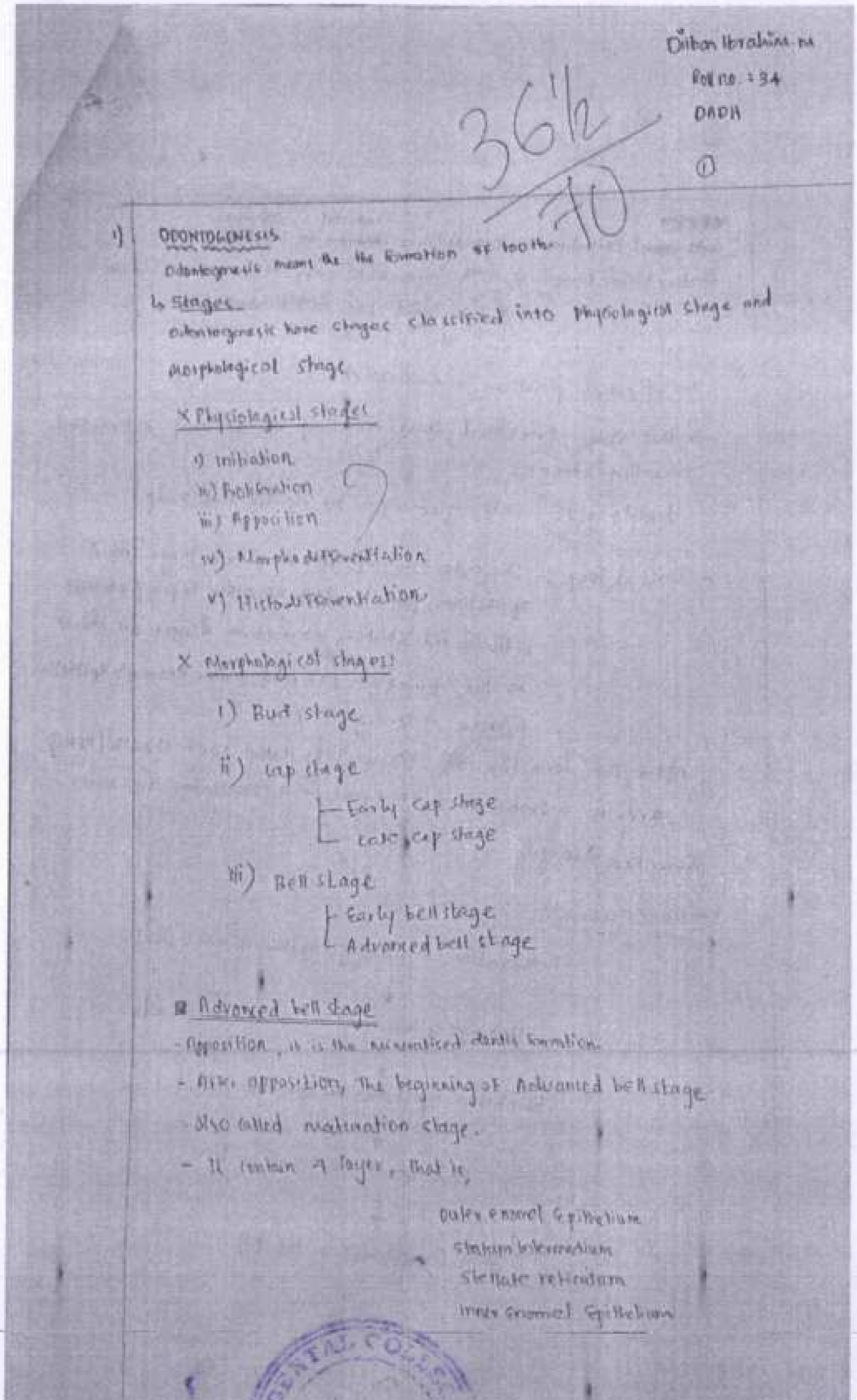

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Roll no. : 34
DADH
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36½/70

1) ODONTOGENESIS

Odontogenesis means the the formation of tooth.

↳ Stages

odontogenesis have stages classified into physiological stage and morphological stage

× Physiological stages

i) initiation
ii) Proliferation
iii) Apposition
iv) Morpho differentiation
v) Histodifferentiation

× Morphological stages:

1) Bud stage
ii) cap stage
 - Early cap stage
 - Late cap stage
iii) Bell stage
 - Early bell stage
 - Advanced bell stage

Advanced bell stage

- Apposition, it is the mineralised dental formation.
- After apposition, the beginning of Advanced bell stage
- Also called maturation stage.
- It contain 4 layer, that is,

Outer enamel Epithelium
Stratum intermedium
Stellate reticulum
Inner enamel Epithelium

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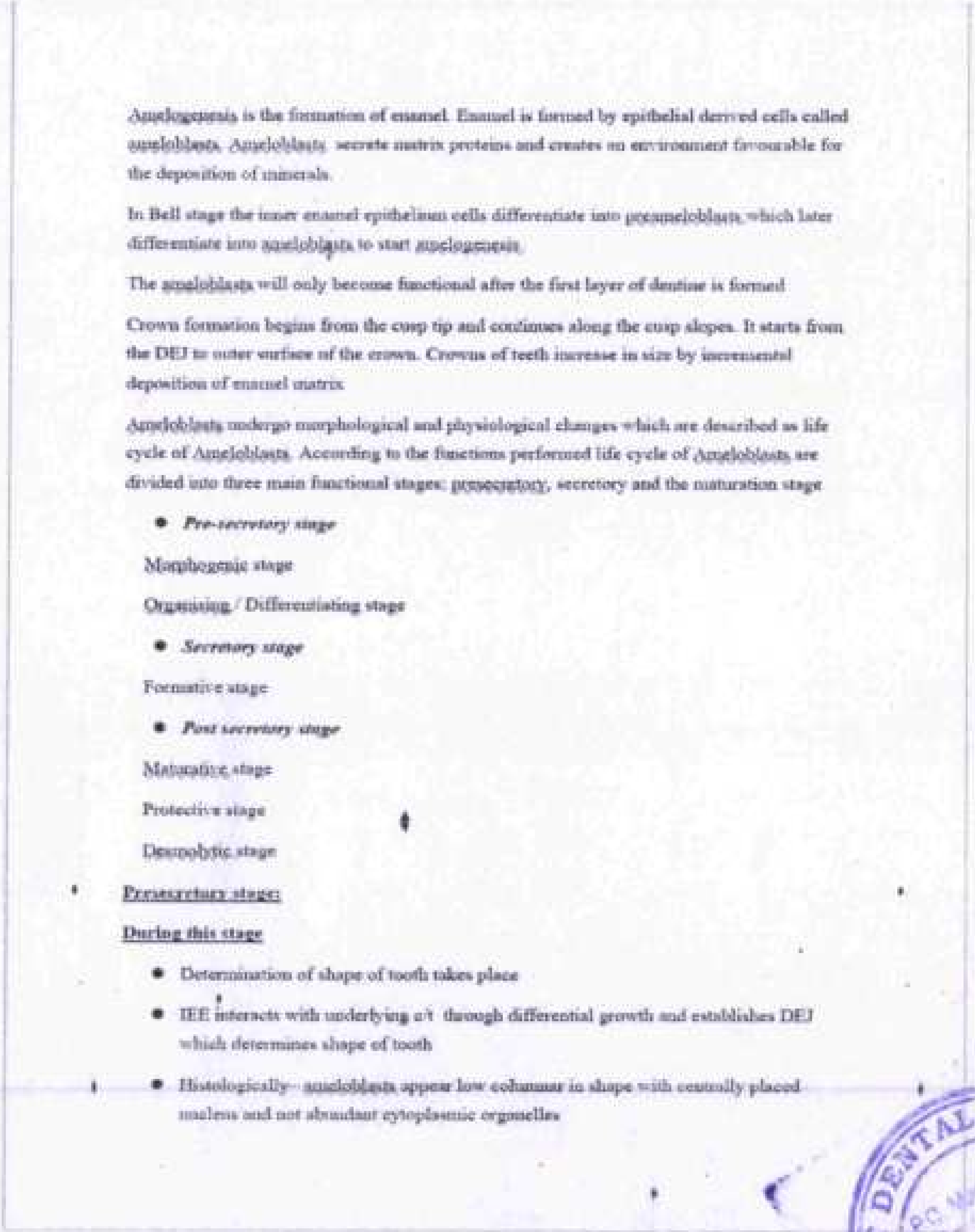
- **Provision of Special Notes:**

Specialized study materials are provided as notes to the slow performers, which helps to improve the understanding and retention of difficult concepts.



Amelogenesis is the formation of enamel. Enamel is formed by epithelial derived cells called ameloblasts. Ameloblasts secrete matrix proteins and creates an environment favourable for the deposition of minerals.

In Bell stage the inner enamel epithelium cells differentiate into preameloblasts which later differentiate into ameloblasts to start amelogenesis.

The ameloblasts will only become functional after the first layer of dentine is formed

Crown formation begins from the cusp tip and continues along the cusp slopes. It starts from the DEJ to outer surface of the crown. Crowns of teeth increase in size by incremental deposition of enamel matrix

Ameloblasts undergo morphological and physiological changes which are described as life cycle of Ameloblasts. According to the functions performed life cycle of Ameloblasts are divided into three main functional stages: presecretory, secretory and the maturation stage

- *Pre-secretory stage*

Morphogenic stage

Organising / Differentiating stage

- *Secretory stage*

Formative stage

- *Post secretory stage*

Maturative stage

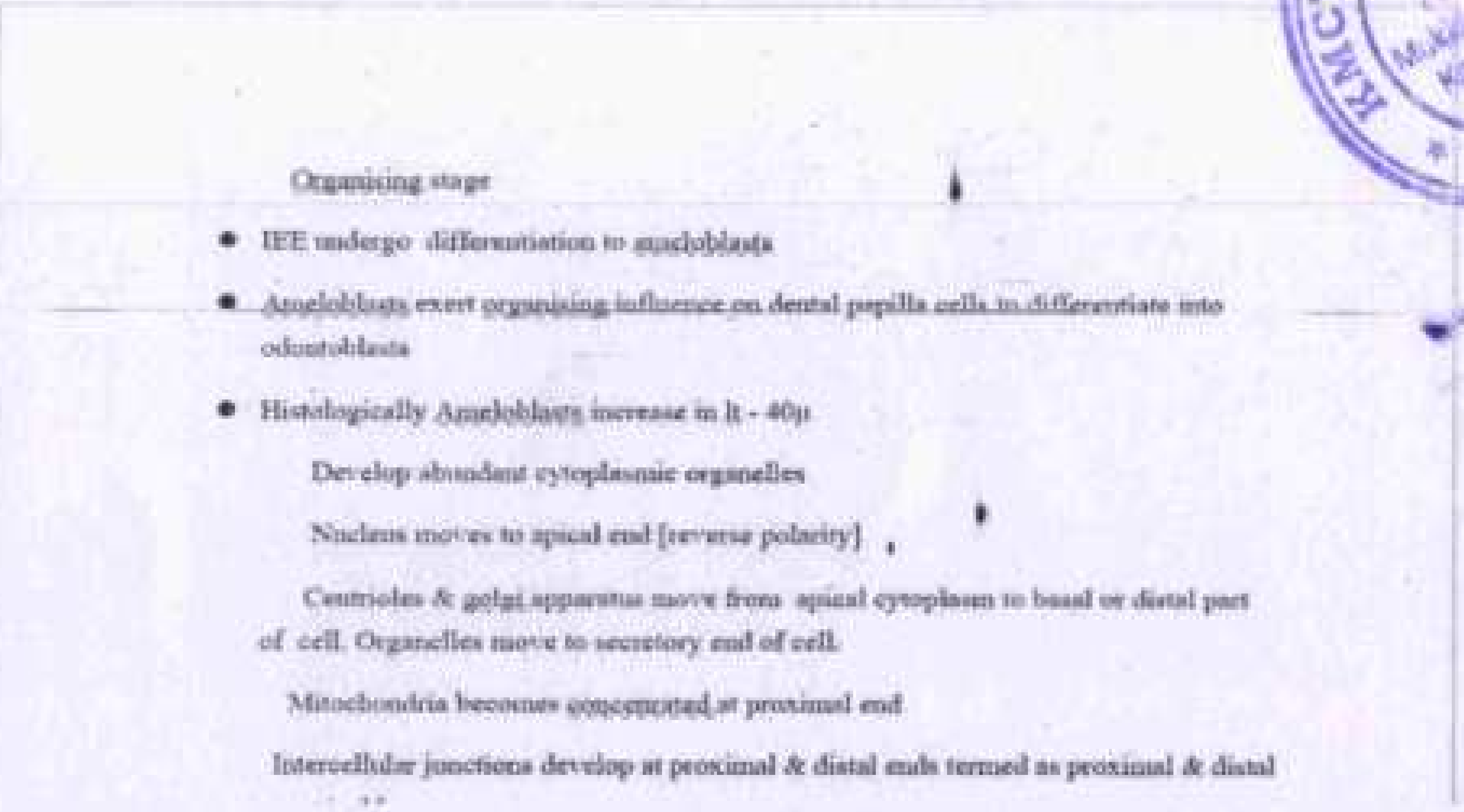
Protective stage

Desmolytic stage

Presecretory stage:

During this stage

- Determination of shape of tooth takes place
- IEE interacts with underlying c/t through differential growth and establishes DEJ which determines shape of tooth
- Histologically– ameloblasts appear low columnar in shape with centrally placed nucleus and not abundant cytoplasmic organelles



Organising stage

- IEE undergo differentiation to ameloblasts
- Ameloblasts exert organising influence on dental papilla cells to differentiate into odontoblasts
- Histologically Ameloblasts increase in ht - 40μ

Develop abundant cytoplasmic organelles

Nucleus moves to apical end [reverse polarity]

Centrioles & golgi apparatus move from apical cytoplasm to basal or distal part of cell. Organelles move to secretory end of cell.

Mitochondria becomes concentrated at proximal end

Intercellular junctions develop at proximal & distal ends termed as proximal & distal

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Intercellular junctions develop at proximal & distal ends termed as proximal & distal terminal bars

- At the terminal phase of this stage Dentin formation begins and basal lamina disintegrates
- Ameloblasts derive alternate source of nutrition from dental sac as dentin deposition starts.

Secretory stage

During this stage the ameloblasts secrete the matrix proteins.

Protein is synthesised in the rough endoplasmic reticulum and modified in the golgi complex and packed as proteins in secretory granules in the basal cell region and released into extracellular space by a process called exocytosis.

Ameloblasts develop junctional specialization at proximal and distal end which maintains organisation of ameloblast layer and controls metabolite diffusion.

During this stage Ameloblasts develop cytoplasmic extension on the apical end called Tomes process

The acquisition of Tomes process signals the beginning of the secretory stage

The contents of secretory granules are released against the newly formed mantle dentine which, immediately becomes partially mineralized to form the initial layer of enamel. This layer does not contain enamel rods

As the first increment of enamel is formed, ameloblasts move away from the dentine surface

When enamel formation begins Tomes process comprises only a **proximal portion**, after the initial layer is formed it develops a **distal portion** as an outgrowth of the proximal process

Therefore secretion of enamel proteins is established from two sites, the proximal portion and the distal portion of the Tomes process

Secretion from the first site (proximal portion) results in the formation of enamel partitions that surround a pit in which resides the distal portion

These partitions form the **interrod enamel**

Secretion from the second site fills the pit which, after mineralization forms the **enamel rod**

Enamel formed from both sites is of identical composition but differ only in orientation of crystals. The distal Tomes process retreats leaving a narrow space that is filled with organic material forming the **rod sheath**

Eventually the ameloblasts become smaller like they were while secreting the initial enamel layer. Because rods form in relation to the distal portion of the Tomes process the final few increments of enamel do not contain any rods

Thus enamel is composed of a rod-containing layer sandwiched between thin rodless initial and final layers

Maturation stage

When secretion of the full thickness of enamel is complete, ameloblasts enter the maturation stage

In this stage they shorten and transform into cuboidal shaped cells. The adjacent stratum intermedium and stellate reticulum reorganize to form a papillary layer

They undergo 'modulation', alternating between ruffle-ended apical surfaces to smooth

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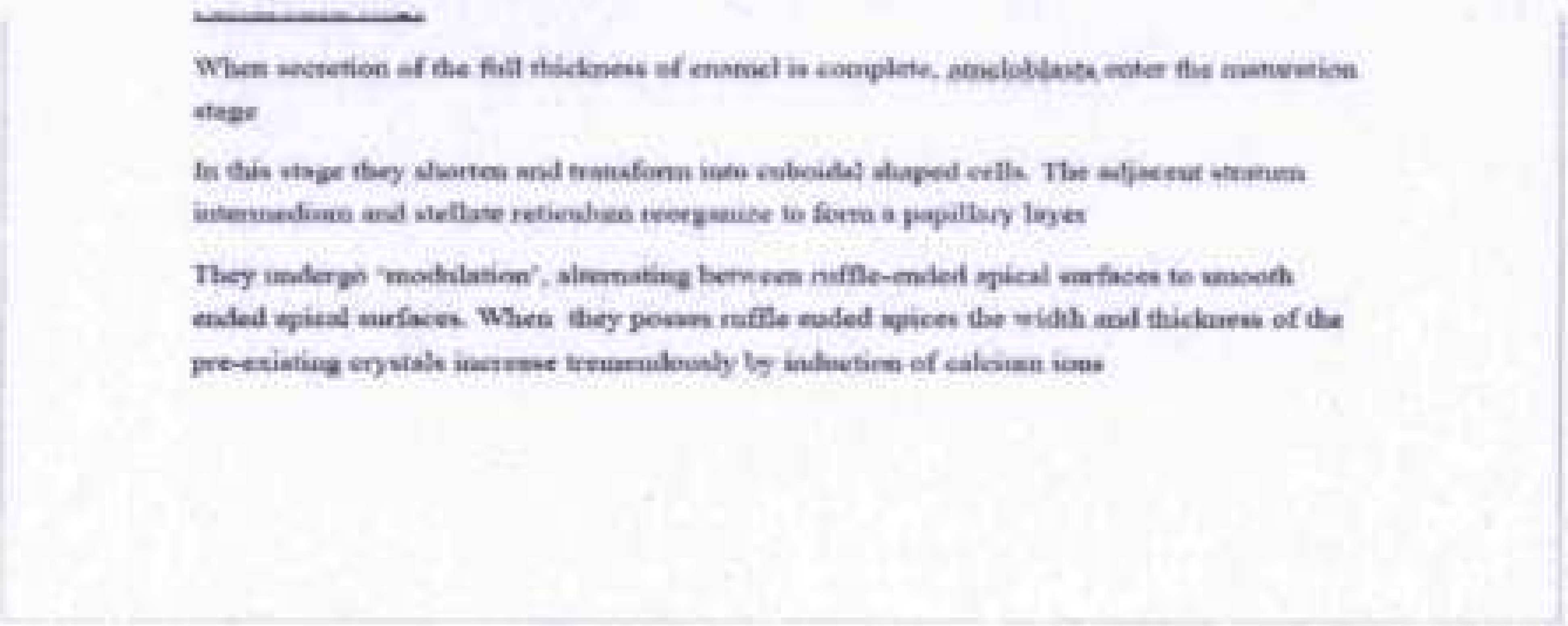
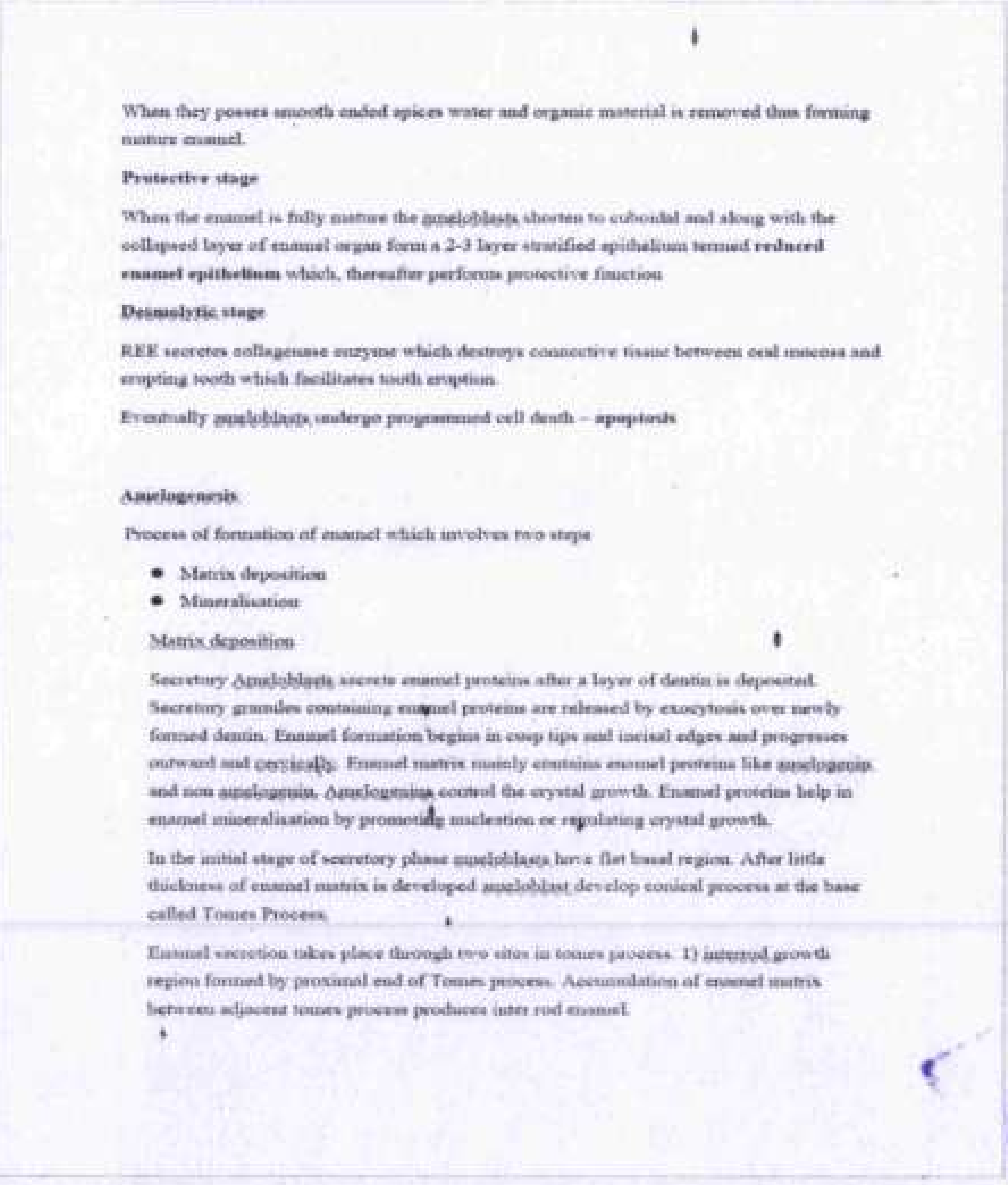


[illegible]

When secretion of the full thickness of enamel is complete, ameloblasts enter the maturation stage

In this stage they shorten and transform into cuboidal shaped cells. The adjacent stratum intermedium and stellate reticulum reorganize to form a papillary layer

They undergo 'modulation', alternating between ruffle-ended apical surfaces to smooth ended apical surfaces. When they posses ruffle ended apices the width and thickness of the pre-existing crystals increase tremendously by induction of calcium ions



When they posses smooth ended apices water and organic material is removed thus forming mature enamel.

Protective stage

When the enamel is fully mature the ameloblasts shorten to cuboidal and along with the collapsed layer of enamel organ form a 2-3 layer stratified epithelium termed **reduced enamel epithelium** which, thereafter performs protective function

Desmolytic stage

REE secretes collagenase enzyme which destroys connective tissue between oral mucosa and erupting tooth which facilitates tooth eruption.

Eventually ameloblasts undergo programmed cell death – **apoptosis**

Amelogenesis

Process of formation of enamel which involves two steps

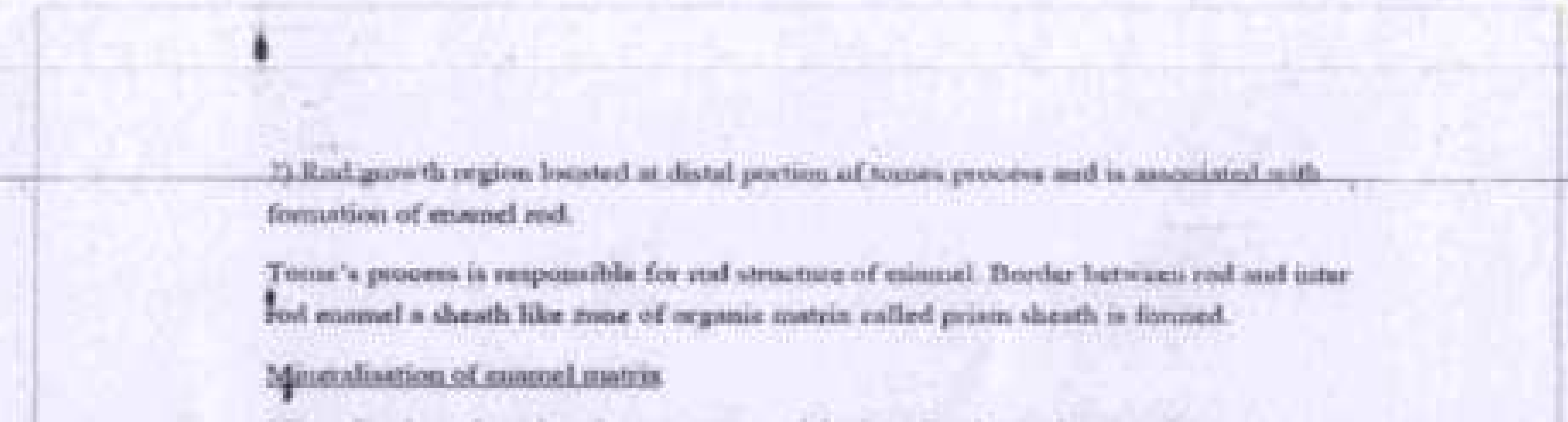
- Matrix deposition
- Mineralisation

Matrix deposition

Secretory Ameloblasts secrete enamel proteins after a layer of dentin is deposited. Secretory granules containing enamel proteins are released by exocytosis over newly formed dentin. Enamel formation begins in cusp tips and incisal edges and progresses outward and cervically. Enamel matrix mainly contains enamel proteins like amelogenin and non amelogenin. Amelogenins control the crystal growth. Enamel proteins help in enamel mineralisation by promoting nucleation or regulating crystal growth.

In the initial stage of secretory phase ameloblasts have flat basal region. After little thickness of enamel matrix is developed ameloblast develop conical process at the base called Tomes Process.

Enamel secretion takes place through two sites in tomes process. 1) internal growth region formed by proximal end of Tomes process. Accumulation of enamel matrix between adjacent tomes process produces inter rod enamel.



2) Rod growth region located at distal portion of tomes process and is associated with formation of enamel rod.

Tome's process is responsible for rod structure of enamel. Border between rod and inter rod enamel a sheath like zone of organic matrix called prism sheath is formed.

Mineralisation of enamel matrix

Mineralisation takes place in two steps partial mineralisation and maturation

Mineralisation occurs by deposition of minerals in secreted protein matrix. Secretory ameloblasts are involved in production of enamel matrix and mineralisation. Calcium required for mineralisation reaches through circulation to tissue fluid. Calcium from tissue fluid is transported into the cell and gets attached to calcium binding proteins. Complex of calcium and calcium binding protein moves towards distal cytoplasm and released

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formation of enamel rod.

Tome's process is responsible for rod structure of enamel. Border between rod and inter rod enamel a sheath like zone of organic matrix called prism sheath is formed.

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Mineral deposition in enamel matrix occurs in four phases

1) Primary mineralisation – 30% mineral deposition
2) Secondary stage – starts at surface and proceeds toward DEJ
3) Tertiary stage -mineral rebounds from inner layer of enamel to outward
4) Fourth stage – further deposition of minerals in surface enamel.

Immediate partial mineralisation

Enamel matrix undergoes immediate partial mineralisation immediately after its laid down. 25-30% total mineral content is deposited. Mineralisation begins at DEJ where tuftelin, ameloblastin and enamelin proteins are deposited on layer of dentin. Initial enamel crystals are needle like oriented perpendicular to DEJ. Enamel crystallites elongate to produce enamel ribbons and the process continues entire thickness of secreted enamel matrix.

Maturation

Characterised by gradual completion of mineralisation. Massive re absorption of matrix proteins and water takes place by ameloblasts along with rapid growth of crystallites which grow in width and thickness.

Tertiary stage of mineralisation

Maturation process starts at DEJ and progresses to surface similarly from cusp or incisal tip to cervical region.

Prepared by

Dr Usha Balan

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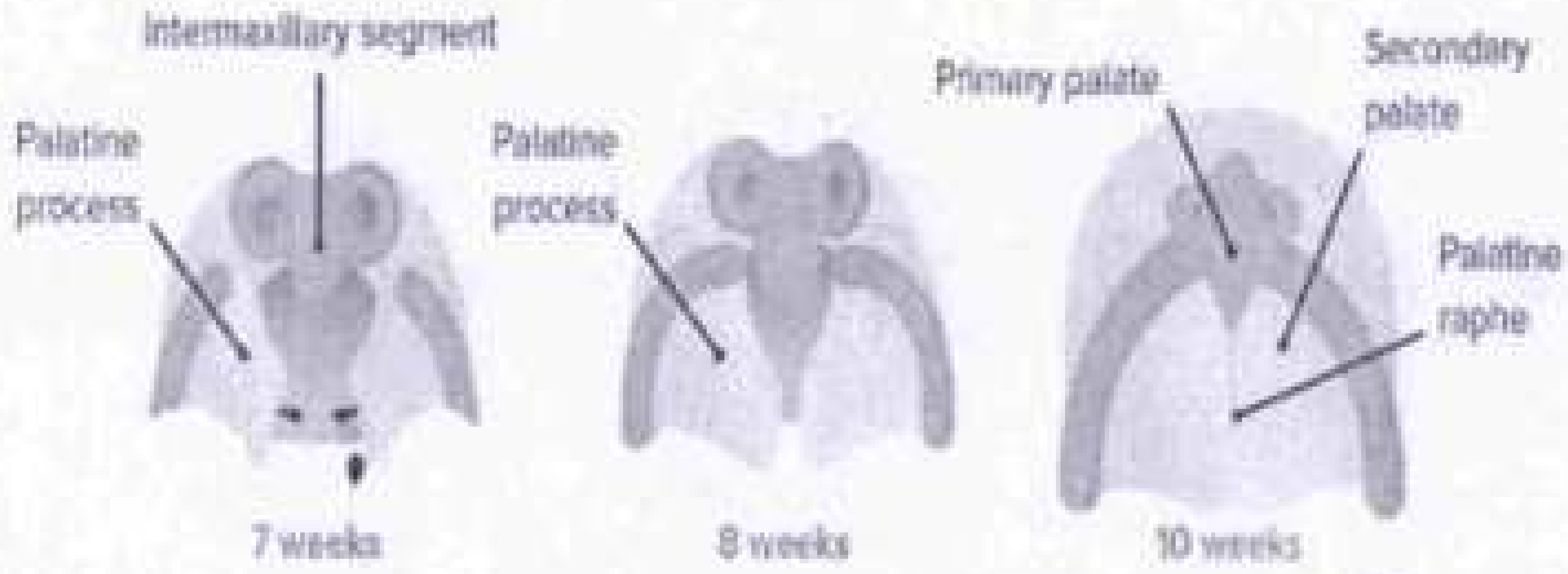
Formation of Palate

Palate develops from primary palate and palatal processes.

Medial growth of maxillary process forms upper lip, it also extends backward on either side of stomatodeum. Backward extension of maxillary process forms two plate like shelves which grow medially called palatal process. Primary palate is formed from fronto nasal process.

Initially the palatal shelves are vertically oriented on either side of the tongue so all the processes are widely separated. During 8th week of IUL after descent of tongue, palatal shelves alter and position in horizontal direction. Two palatal shelves grow medially towards each other and fuse in the midline and with the posterior margin of primary palate to form roof of mouth.

Palatal shelves fuse with nasal septum to separate two nasal cavities. Junction of union of these palatal components is marked by incisive papilla overlying incisive canal. Ossification of palate starts at 8th week of intrauterine life by intramembranous ossification of mesoderm. Ossification does not occur in the posterior part of palate giving rise to region of soft palate



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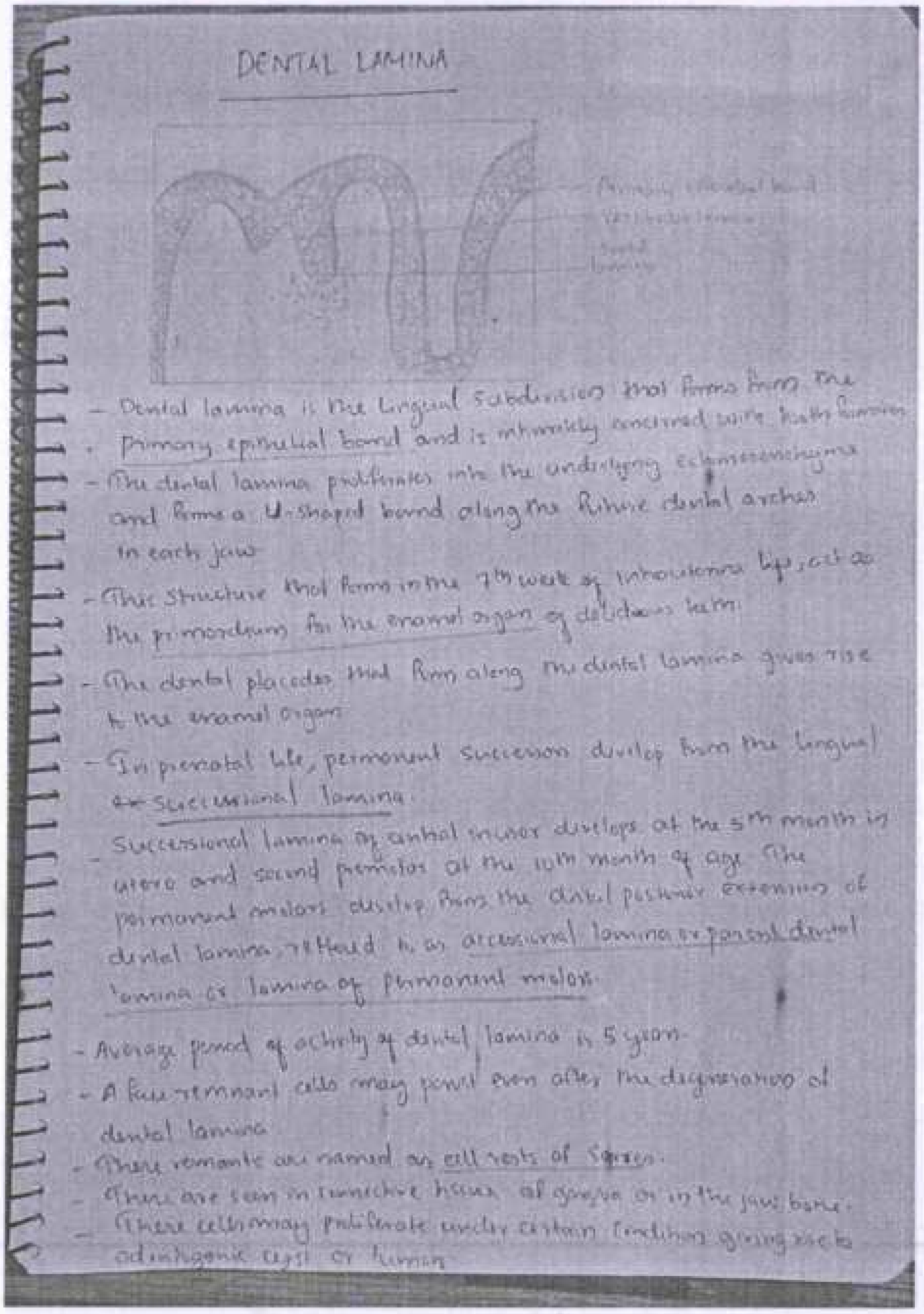
Primary epithelial band
Vestibular lamina
Dental lamina

DENTAL LAMINA

- Dental lamina is the lingual subdivision that forms from the primary epithelial band and is intimately concerned with tooth formation.
- The dental lamina proliferates into the underlying ectomesenchyme and forms a U-shaped band along the future dental arches in each jaw
- This structure that forms in the 7th week of intrauterine life, act as the primordium for the enamel organ of deciduous teeth.
- The dental placodes that form along the dental lamina gives rise to the enamel organ
- In prenatal life, permanent successors develop from the lingual ~~or~~ successional lamina.
- Successional lamina of central incisor develops at the 5th month in utero and second premolar at the 10th month of age. The permanent molars develop from the distal posterior extension of dental lamina, referred to as accessional lamina or parent dental lamina or lamina of permanent molars.
- Average period of activity of dental lamina is 5 years.
- A few remnant cells may persist even after the degeneration of dental lamina
- These remnants are named as cell rests of Serres.
- These are seen in connective tissue of gingiva or in the jaw bone.
- These cells may proliferate under certain conditions giving rise to odontogenic cyst or tumors

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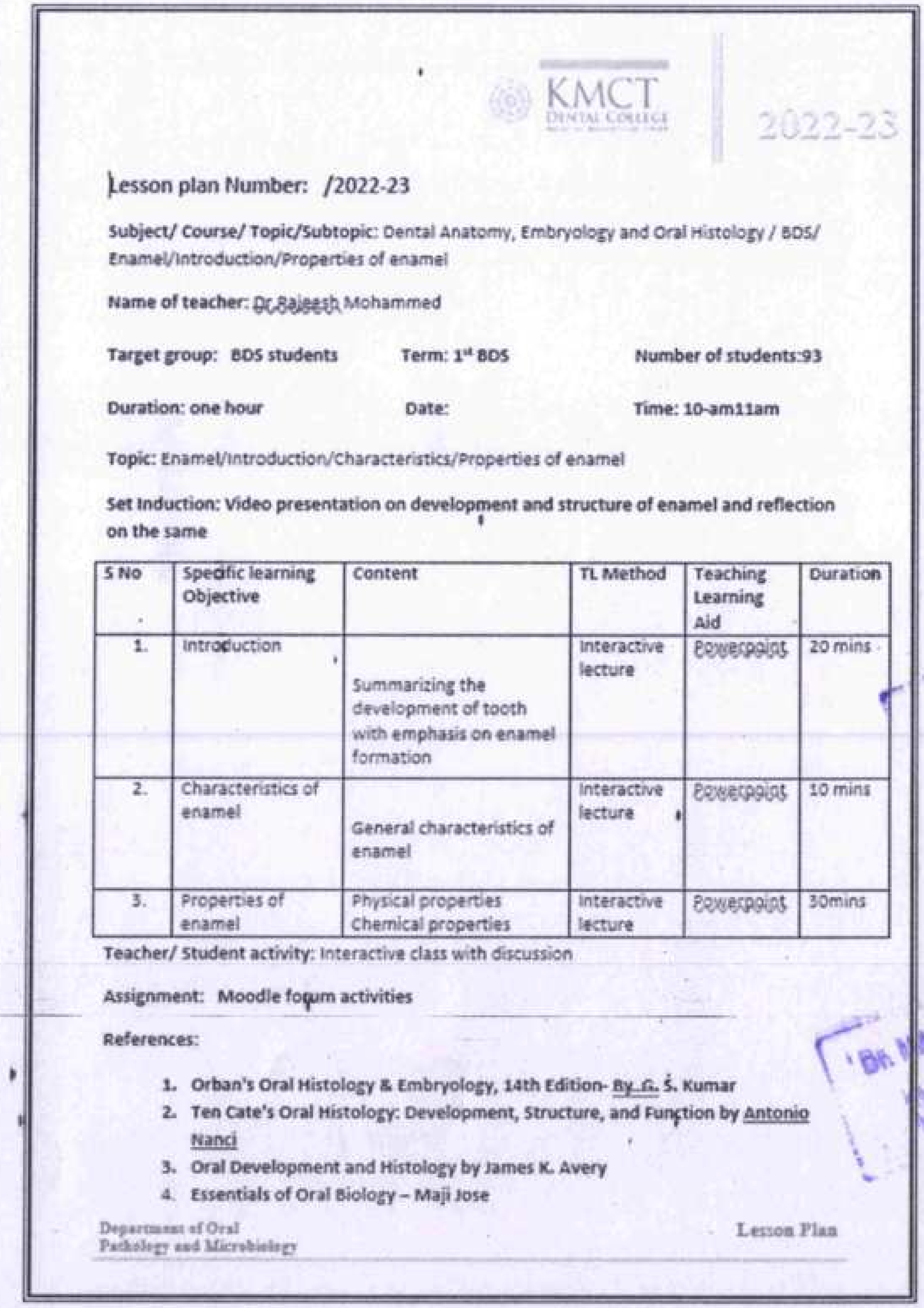
Customized Learning Plans: Tailored learning plans are designed to cater to specific learning styles, pace, and requirements, ensuring a more personalized learning experience.



KMCT
DENTAL COLLEGE

2022-23

Lesson plan Number: /2022-23

Subject/ Course/ Topic/Subtopic: Dental Anatomy, Embryology and Oral Histology / BDS/ Enamel/Introduction/Properties of enamel

Name of teacher: Dr Rajeesh Mohammed

Target group: BDS students **Term: 1st BDS** **Number of students:93**

Duration: one hour **Date:** **Time: 10-am11am**

Topic: Enamel/Introduction/Characteristics/Properties of enamel

Set Induction: Video presentation on development and structure of enamel and reflection on the same

S No	Specific learning Objective	Content	TL Method	Teaching Learning Aid	Duration
1.	Introduction	Summarizing the development of tooth with emphasis on enamel formation	Interactive lecture	Powerpoint	20 mins
2.	Characteristics of enamel	General characteristics of enamel	Interactive lecture	Powerpoint	10 mins
3.	Properties of enamel	Physical properties Chemical properties	Interactive lecture	Powerpoint	30mins

Teacher/ Student activity: Interactive class with discussion

Assignment: Moodle forum activities

References:

1. **Orban's Oral Histology & Embryology, 14th Edition- By G. S. Kumar**
2. **Ten Cate's Oral Histology: Development, Structure, and Function by Antonio Nanci**
3. **Oral Development and Histology by James K. Avery**
4. **Essentials of Oral Biology – Maji Jose**

Department of Oral
Pathology and Microbiology

Lesson Plan

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DENTAL COLLEGE

2022-23

Lesson plan Number: /2022-23

Subject/ Course/ Topic/Sub Topic : Dental Anatomy, Embryology and Oral Histology/ BDS/
Topic: Permanent maxillary Premolars/ Distal and Occlusal

Name of teacher: Dr Usha Balan

Target group: BDS **Term- First year** **Number of students:93**

Duration:60 minutes **Date:** **Time:10.00 am-11.00am**

Topic: Topic: Introduction and various aspects of maxillary Premolar

Set Induction: Image projection on power point and reflection on the same

S No	Specific learning Objective	Content	TL Method	Teaching Learning Aid	Duration
1	To understand the morphology of maxillary premolar	Distal aspect	Interactive lecture	Power point and video presentation	15mins
2	To understand the morphology of maxillary premolar	Occlusal aspect	Interactive lecture	Power point and video presentation	15mins
3	To understand Class traits of maxillary premolar	All aspects in general	Interactive lecture	Power point and video presentation	15mins

Teacher/ Student activity: Interactive class with discussion on video presentation

Assignment: Moodle Forum

References:

1. **Essentials of Oral Biology – Maji Jose**
2. **Wheelers dental anatomy**

Department of Oral
Pathology and Microbiology

Lesson Plan

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DEPARTMENT OF ORAL PATHOLOGY & MICROBIOLOGY

REPORT

TEST AND RETEST CONDUCTED FOR THE SLOW LEANERS

Conducted to improve the outcome after identifying the "slow learners" using RUBRICS formula.

Objectives of the Test and Retest Program

The primary objectives of the Test and Retest Program are to:

1. Identify students facing academic difficulties.
2. Provide extra care to enhance the concentration and knowledge of students.
3. Assess progress through a retesting mechanism.

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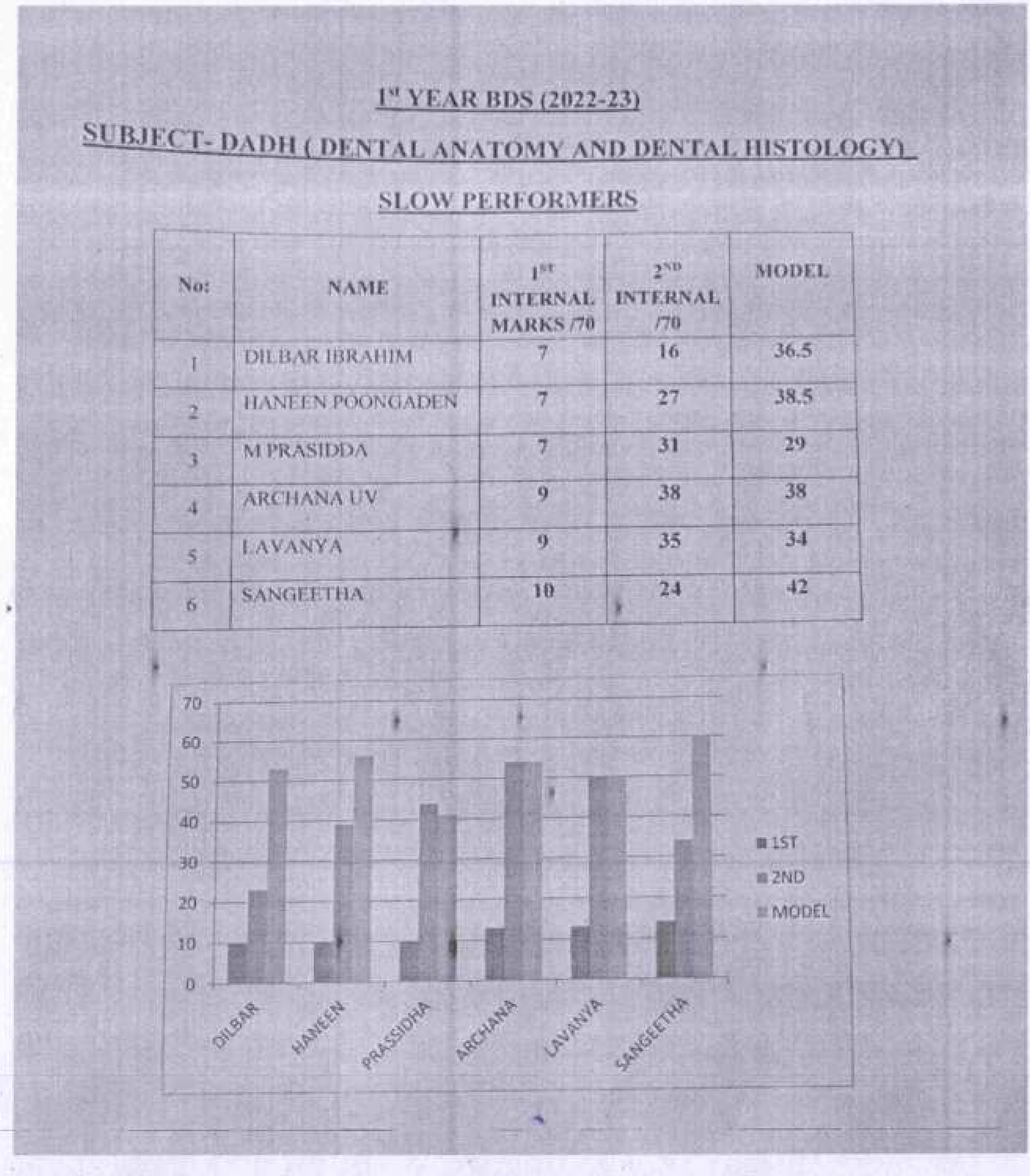

1st YEAR BDS (2022-23)

SUBJECT- DADH (DENTAL ANATOMY AND DENTAL HISTOLOGY)

SLOW PERFORMERS

No:	NAME	1ST INTERNAL MARKS /70	2ND INTERNAL /70	MODEL
1	DILBAR IBRAHIM	7	16	36.5
2	HANEEN POONGADEN	7	27	38.5
3	M PRASIDDA	7	31	29
4	ARCHANA UV	9	38	38
5	LAVANYA	9	35	34
6	SANGEETHA	10	24	42

70
60
50
40
30
20
10
0
DILBAR
HANEEN
PRASSIDHA
ARCHANA
LAVANYA
SANGEETHA
▨ 1ST
▨ 2ND
▨ MODEL

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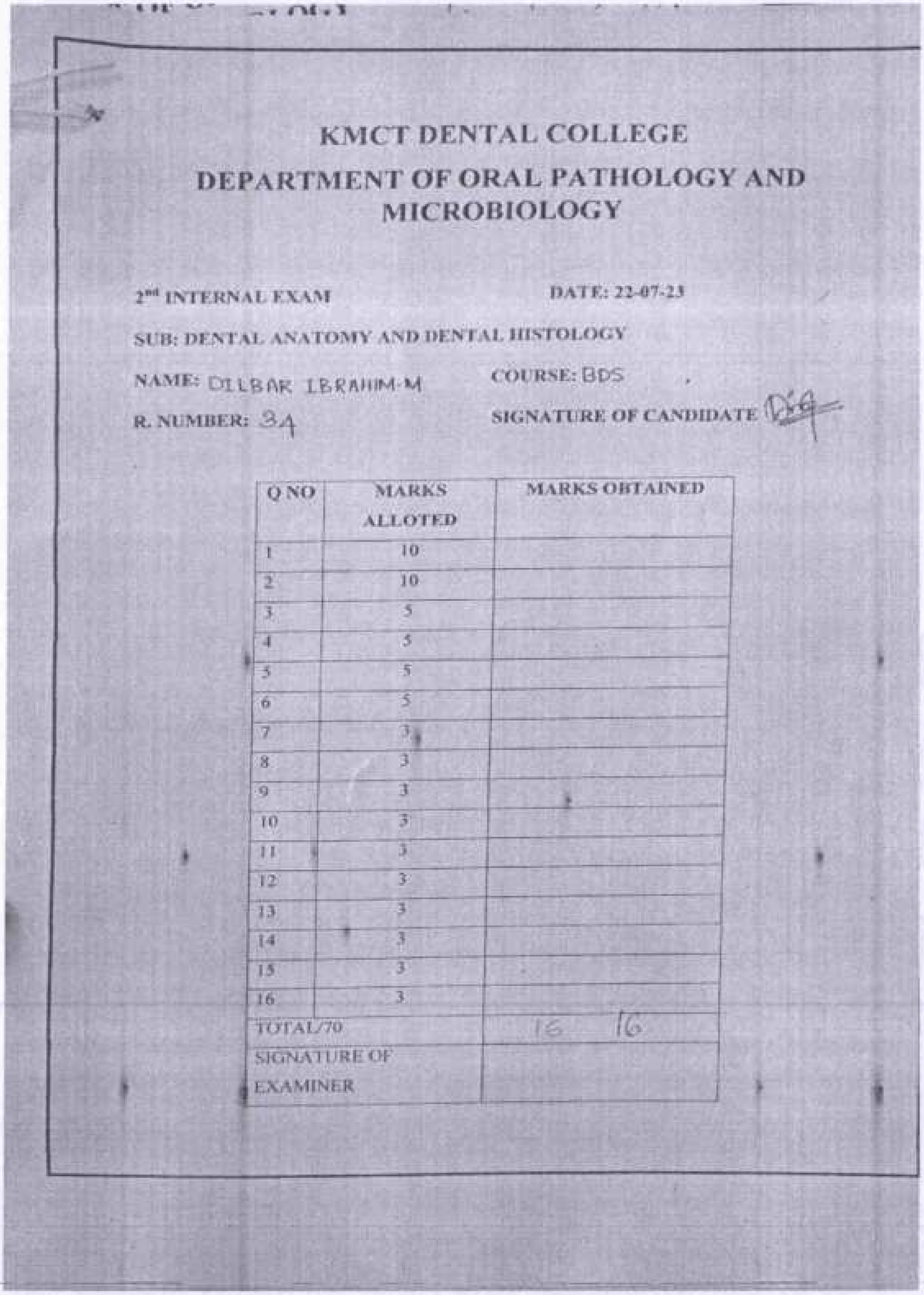

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DEPARTMENT OF ORAL PATHOLOGY AND MICROBIOLOGY

2nd INTERNAL EXAM DATE: 22-07-23

SUB: DENTAL ANATOMY AND DENTAL HISTOLOGY

NAME: DILBAR IBRAHIM-M COURSE: BDS

R. NUMBER: 34 SIGNATURE OF CANDIDATE

Q NO	MARKS ALLOTED	MARKS OBTAINED
1	10	
2	10	
3	5	
4	5	
5	5	
6	5	
7	3	
8	3	
9	3	
10	3	
11	3	
12	3	
13	3	
14	3	
15	3	
16	3	
TOTAL/70		16 16
SIGNATURE OF EXAMINER		

DADH

2nd internal Exam

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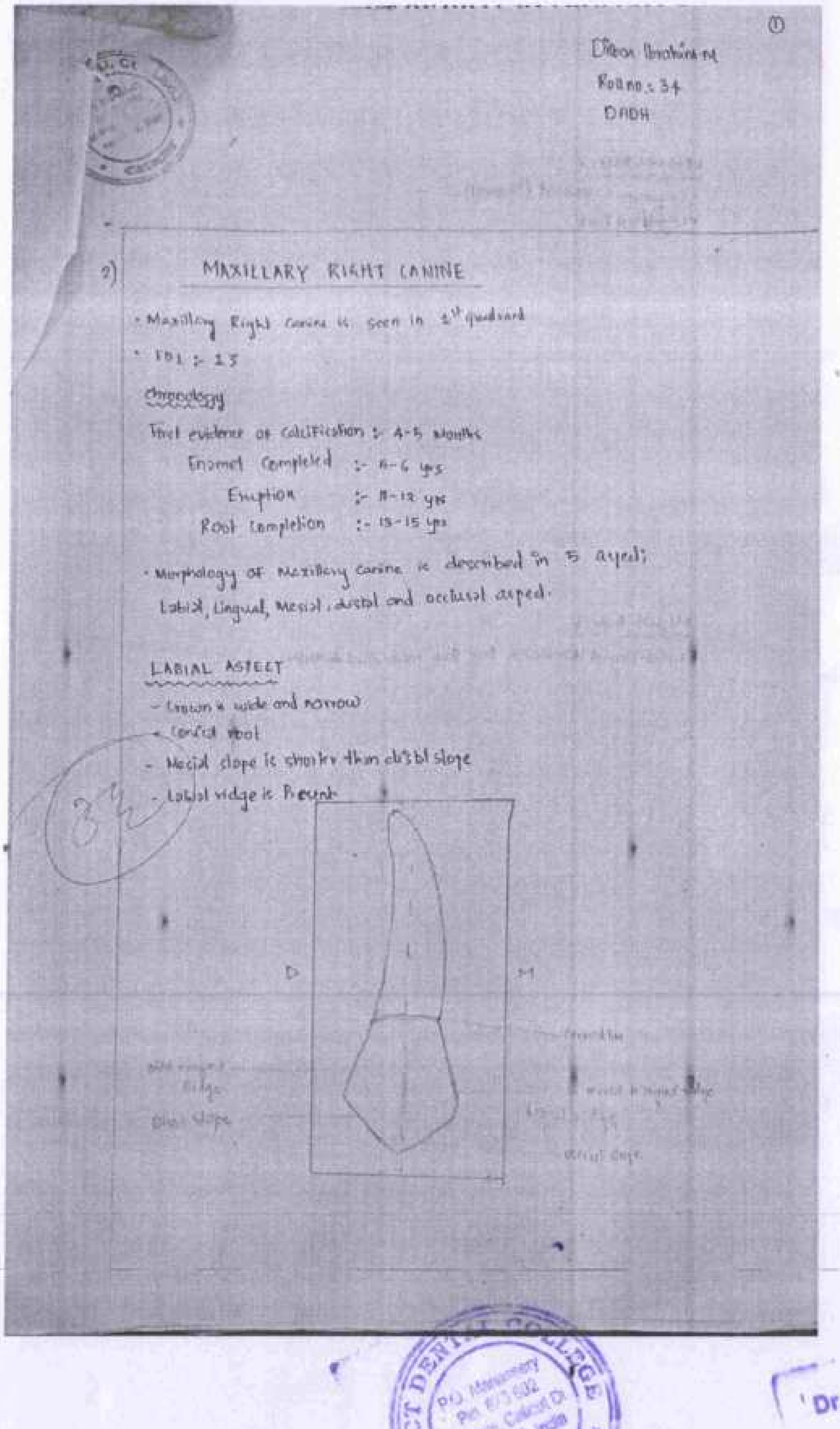

①

Diyaa Ibrahim M
Roll no : 34
DADH

2) MAXILLARY RIGHT CANINE

- Maxillary Right canine is seen in 1st quadrant
- FDI :- 13

Chronology

First evidence of calcification :- 4-5 months
Enamel completed :- 6-6 yrs
Eruption :- 11-12 yrs
Root completion :- 13-15 yrs

- Morphology of Maxillary canine is described in 5 aspect; Labial, Lingual, Mesial, distal and occlusal aspect.

LABIAL ASPECT

- Crown is wide and narrow
- Conical root
- Mesial slope is shorter than distal slope
- Labial ridge is Present

8½

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Pin 673 602
Mukkam, Calicut Dt.
Kerala - S. India

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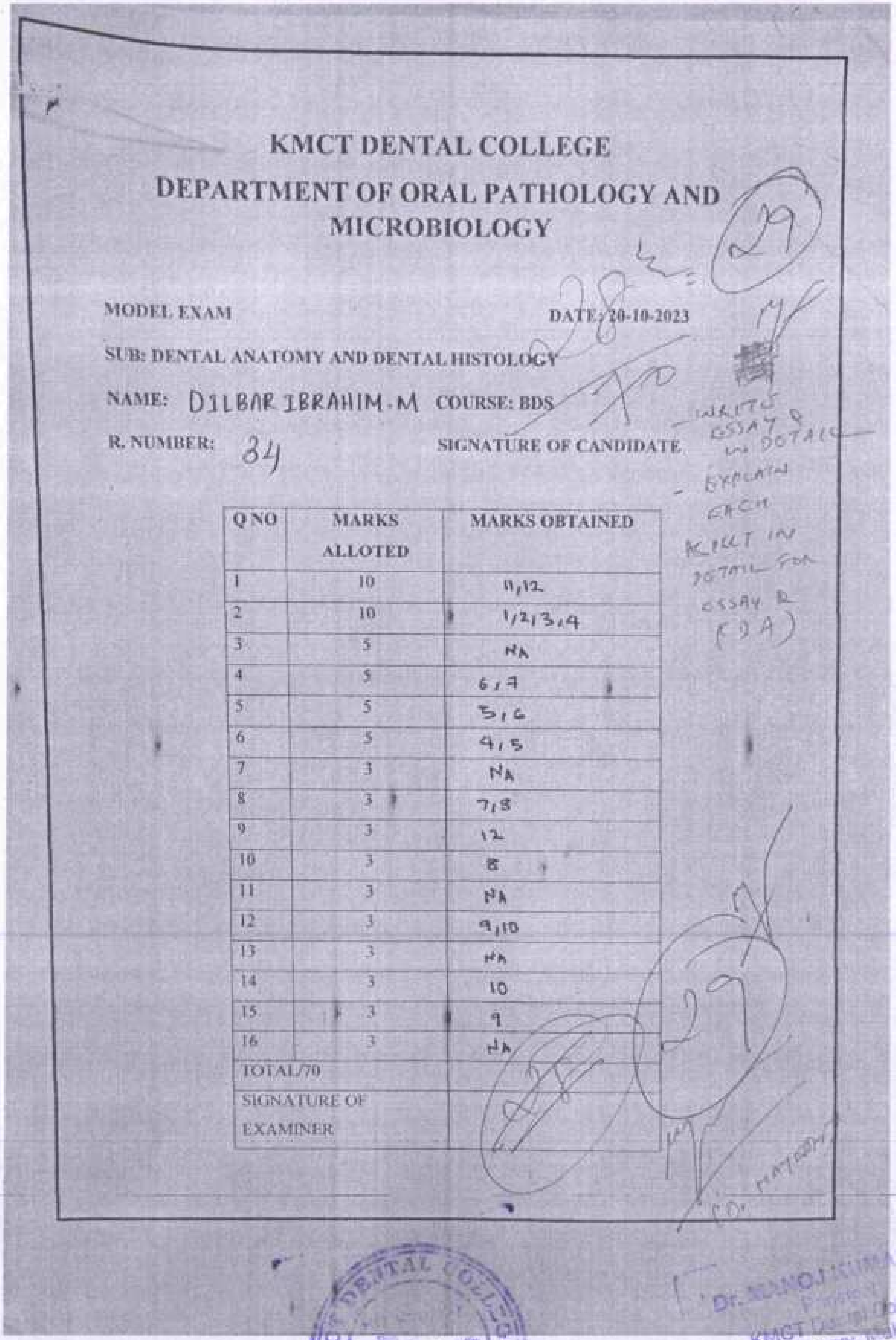
DADH
Model exam



KMCT DENTAL COLLEGE

DEPARTMENT OF ORAL PATHOLOGY AND MICROBIOLOGY

MODEL EXAM DATE: 20-10-2023

SUB: DENTAL ANATOMY AND DENTAL HISTOLOGY

NAME: DILBAR IBRAHIM.M COURSE: BDS

R. NUMBER: 84 SIGNATURE OF CANDIDATE

28½ = 29

- WRITE ESSAY Q IN DETAIL
- EXPLAIN EACH POINT IN DETAIL FOR ESSAY Q
(DA)

Q NO	MARKS ALLOTED	MARKS OBTAINED
1	10	11,12
2	10	1,2,3,4
3	5	NA
4	5	6,7
5	5	5,6
6	5	4,5
7	3	NA
8	3	7,8
9	3	12
10	3	8
11	3	NA
12	3	9,10
13	3	NA
14	3	10
15	3	9
16	3	NA
TOTAL/70		29
SIGNATURE OF EXAMINER		

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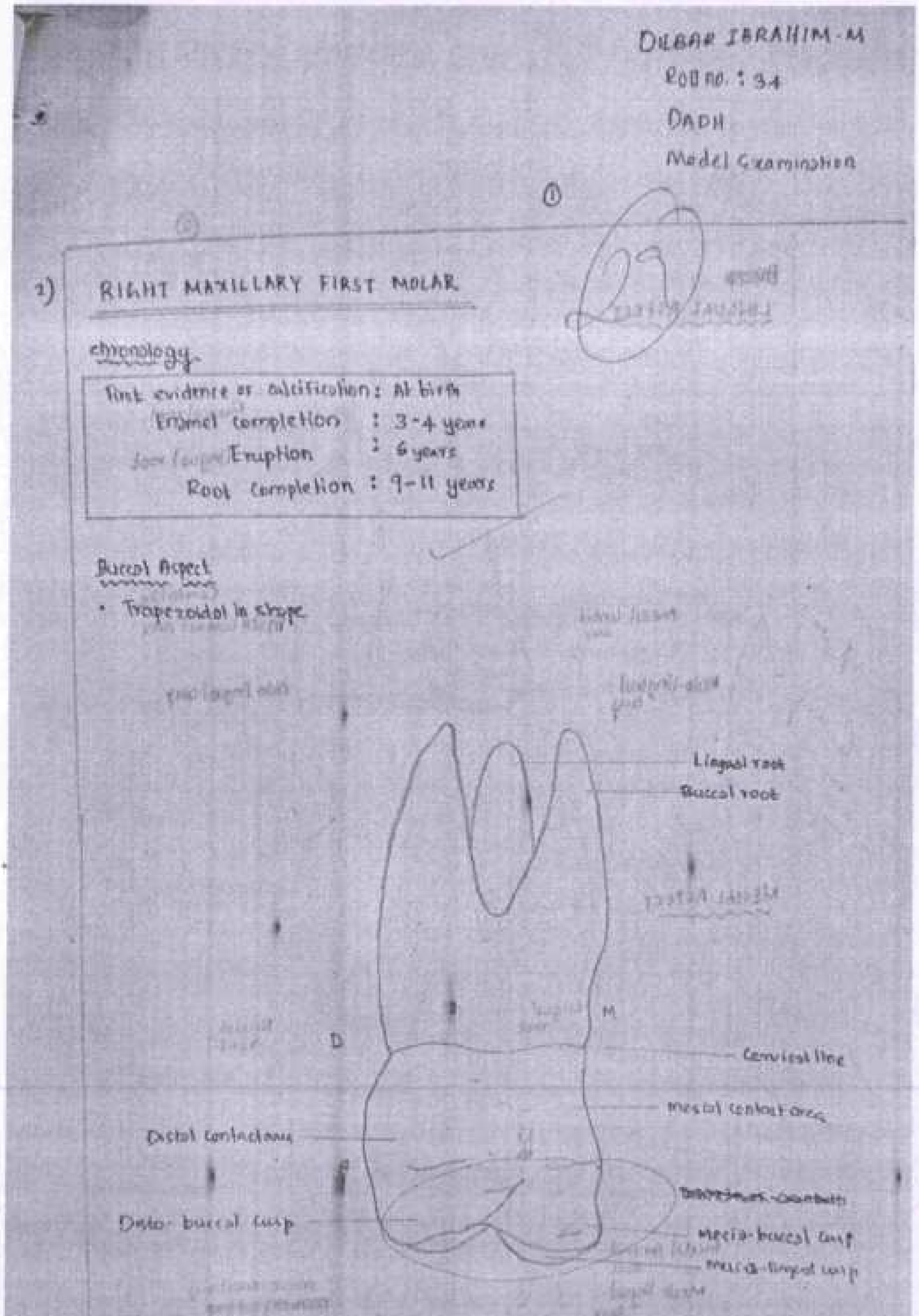

DILBAR IBRAHIM-M
Roll no. : 34
DADH
Model Examination

①

29

2) RIGHT MAXILLARY FIRST MOLAR

chronology

First evidence of calcification : At birth
Enamel completion : 3-4 years
Eruption : 6 years
Root completion : 9-11 years

Buccal Aspect

- Trapezoidal in shape

Lingual root
Buccal root
M
D
Cervical line
mesial contact area
Distal contact area
[illegible]
Disto- buccal cusp
Mesio-buccal cusp
Mesio-lingual cusp

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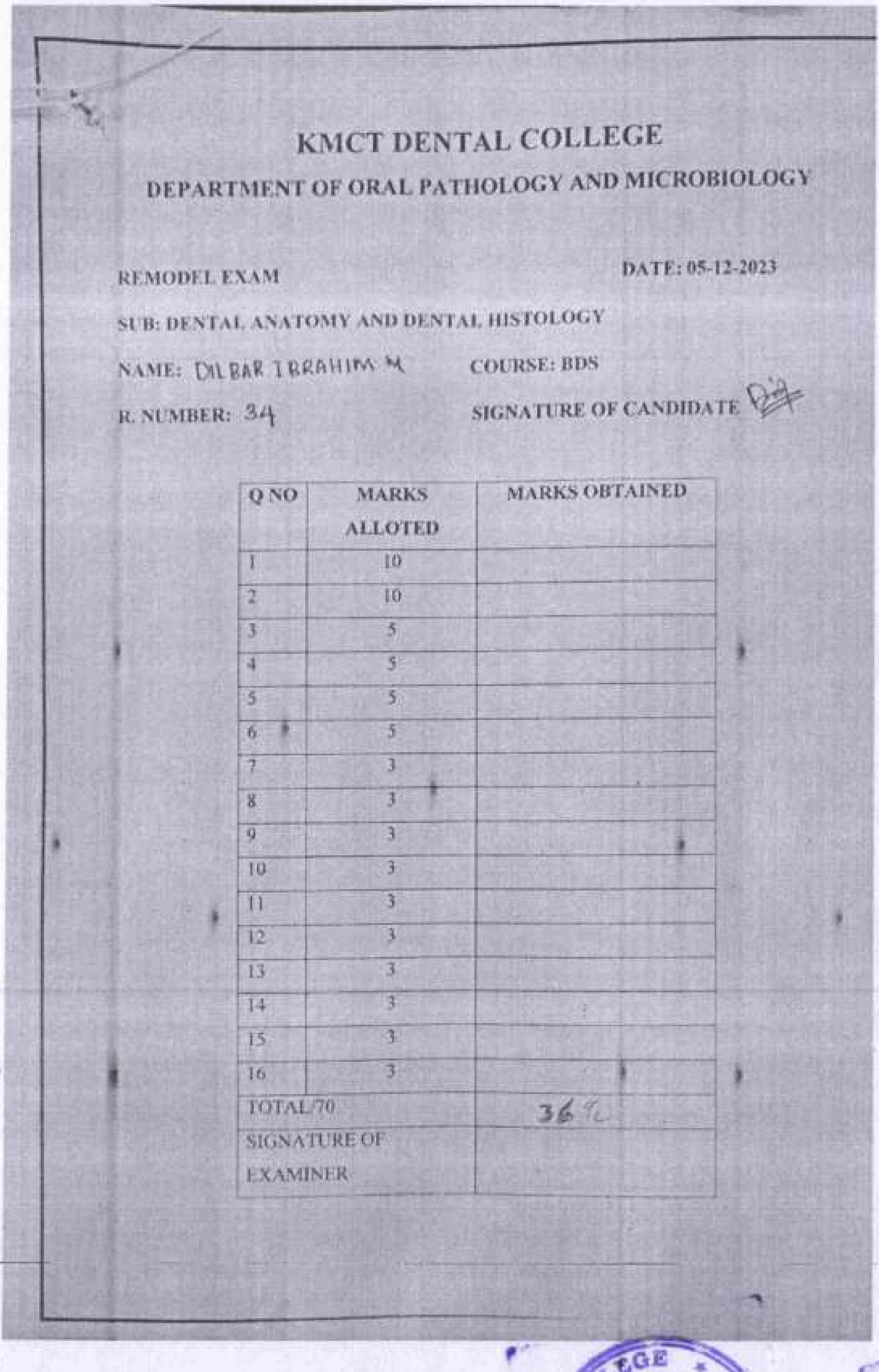
DADH

Remodel exam



KMCT DENTAL COLLEGE

DEPARTMENT OF ORAL PATHOLOGY AND MICROBIOLOGY

REMODEL EXAM DATE: 05-12-2023

SUB: DENTAL ANATOMY AND DENTAL HISTOLOGY

NAME: DILBAR IBRAHIM M COURSE: BDS

R. NUMBER: 34 SIGNATURE OF CANDIDATE

Q NO	MARKS ALLOTED	MARKS OBTAINED
1	10	
2	10	
3	5	
4	5	
5	5	
6	5	
7	3	
8	3	
9	3	
10	3	
11	3	
12	3	
13	3	
14	3	
15	3	
16	3	
TOTAL/70		36½
SIGNATURE OF EXAMINER		

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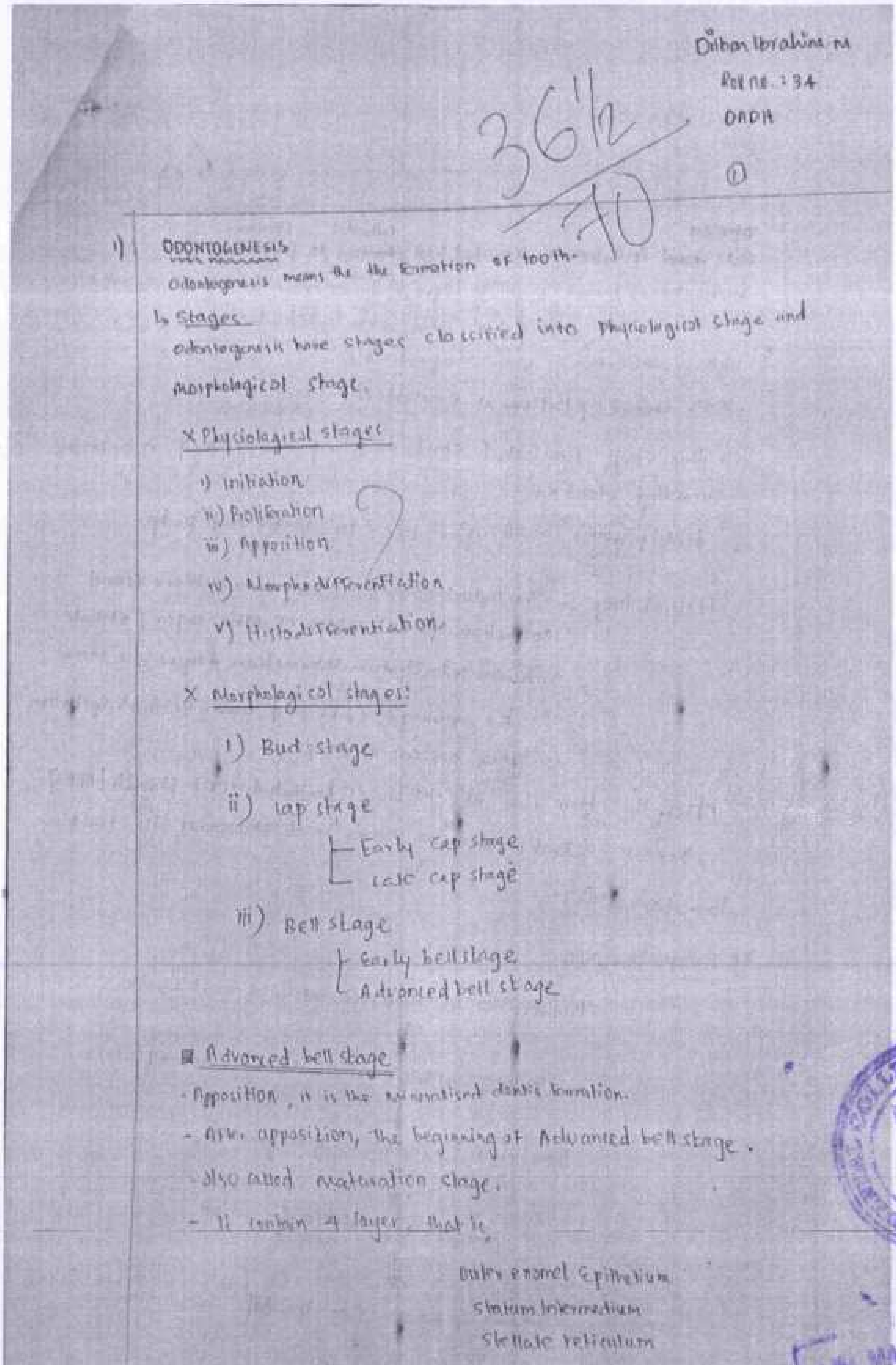

Dilhan Ibrahim M
Roll no. : 34
DADH
①

36½/70

1) ODONTOGENESIS

Odontogenesis means the the formation of tooth.

↳ Stages:

odontogenesis have stages classified into physiological stage and morphological stage.

× Physiological stages

i) initiation
ii) Proliferation
iii) Apposition
iv) Morpho differentiation
v) Histodifferentiation

?

× Morphological stages:

i) Bud stage
ii) cap stage
- Early cap stage
- Late cap stage
iii) Bell stage
- Early bell stage
- Advanced bell stage

Advanced bell stage

- Apposition, it is the mineralised dentis formation.
- After apposition, the beginning of Advanced bell stage.
- also called maturation stage.
- It contain 4 layer, that is,

Outer enamel Epithelium
Stratum Intermedium
Stellate reticulum
Inner enamel Epithelium

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DEPARTMENT OF ORAL & MAXILLOFACIAL SURGERY

DETAILS OF SPECIAL PROGRAMS FOR SLOW PERFORMERS

Continuous Monitoring and Individual Attention by Mentors: The assigned mentors give each student individualized attention, keeping track of their academic achievement, pointing out areas for growth, and offering support and encouragement.

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Thazhecode,Kerala,India
Kozhikode, Thazhecode, 673602, Kerala, India
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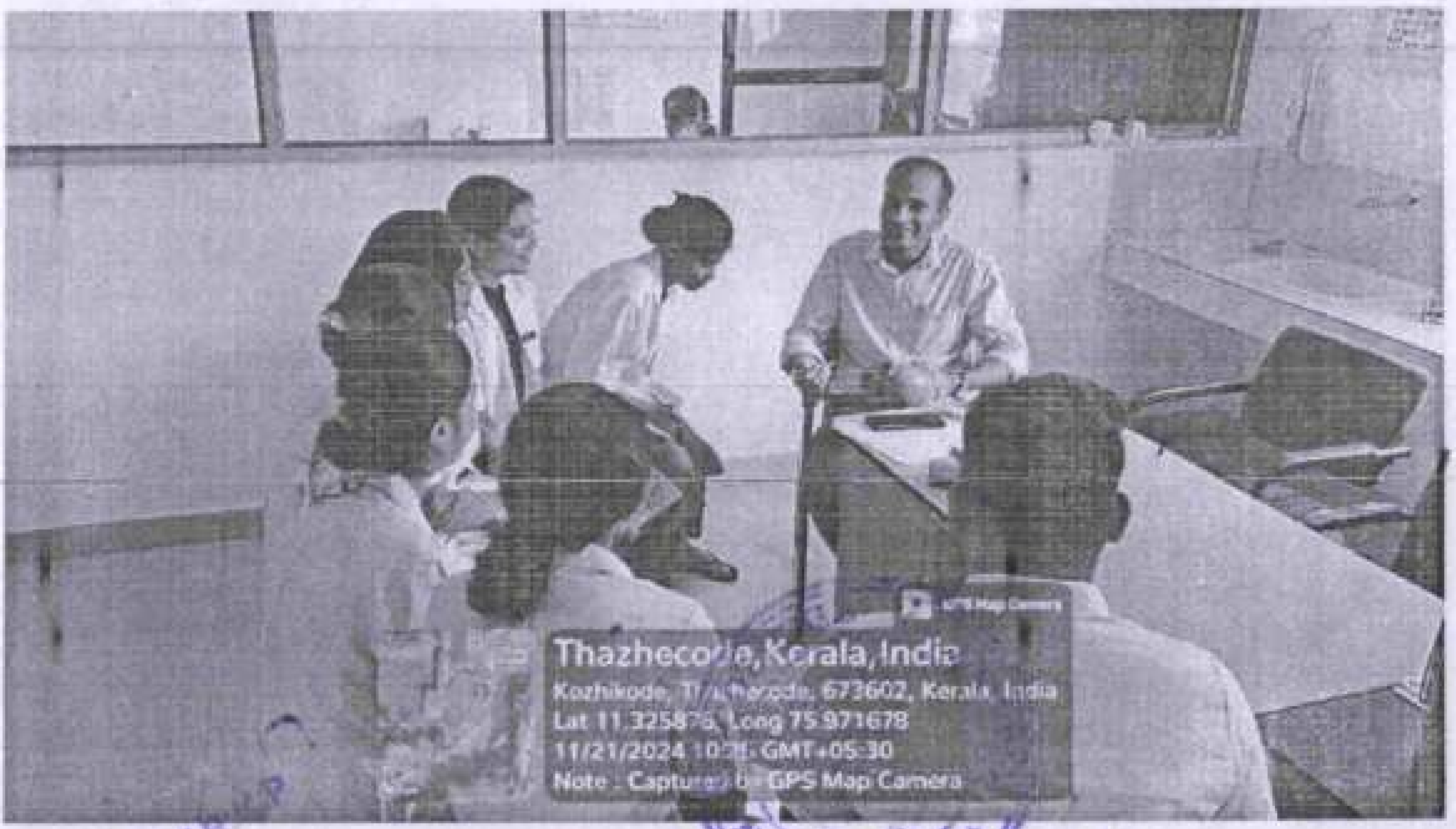
Note : Captured by GPS Map Camera.


GPS Map Camera
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Kozhikode, Thazhecode, 673602, Kerala, India
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Special Classes with Subject Experts: Additional classes taught by subject matter specialists are attended by slow performers. These meetings concentrate on answering questions, elucidating ideas, and offering more direction on difficult subjects.

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Kozhikode, Thazhecode, 673602, Kerala, India
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Note : Captured by GPS Map Camera

GPS Map Camera
Manassery, Kerala, India
8XGC+FPV, KMCT Medical College Rd, Manassery, Kerala 673572, India
Lat 11.326245°
Long 75.971884°
04/10/24 02:36 PM GMT +05:30
Google

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Encouragement of Collaborative Study with Advanced Learners: Slow-performing students are paired with high-achieving peers to establish collaborative study groups. This creates a helpful learning atmosphere where more experienced students guide and help their peers grasp challenging material.

a

GPS Map Camera

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Kozhikode, Thazhecode, 673602, Kerala, India
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11/21/2024 10:27 GMT+05:30
Note : Captured by GPS Map Camera

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Counseling for Students with Psychologists: In order to improve mental health, professional counselors meet with parents and students on a regular basis to discuss academic issues, stress linked to studying, and offer advice on efficient study methods. The Happiness Department is in charge of this.

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Thazhecode,Kerala,India
Kozhikode, Thazhecode, 673602, Kerala, India
Lat 11.326072, Long 75.971801
11/25/2024 12:44 GMT+05:30
Note : Captured by GPS Map Camera

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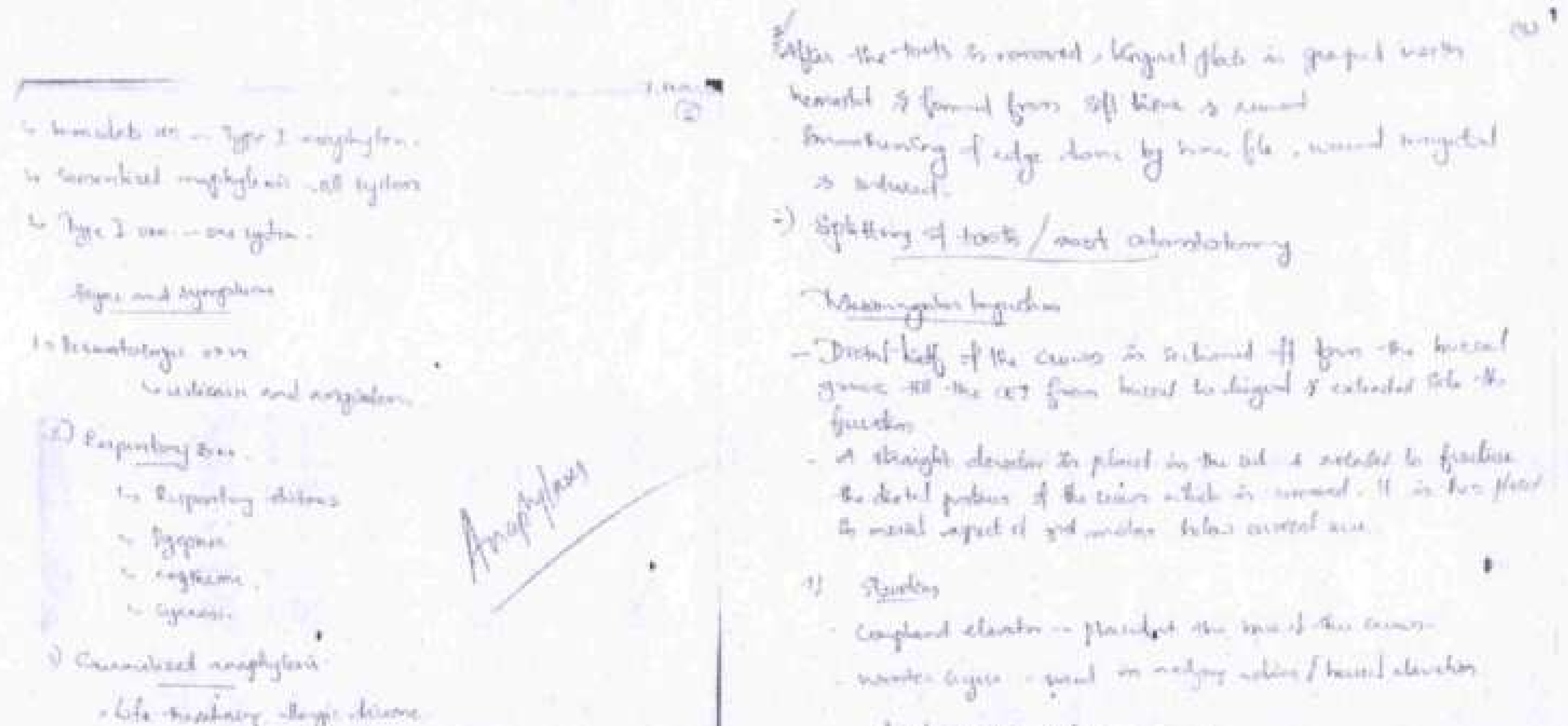
Periodical Assessments with Class Tests and Evaluation: Tests and assessments are conducted in class on a regular basis to monitor progress, pinpoint areas of weakness, and give prompt feedback. Students gain a better understanding of their skills and shortcomings as a result.



→ [illegible] — Type I anaphylaxis.
→ Generalized anaphylaxis — all systems
→ Type I [illegible] — one system.

Signs and symptoms

1 → Dermatologic [illegible]
→ urticaria and angioedema

2) Respiratory Sys.
→ Respiratory distress
→ Dyspnea
→ [illegible]
→ Cyanosis.

3) Generalized anaphylaxis
- Life threatening allergic [illegible]
→ clinical death occurs within few minutes
→ develops after administration of [illegible] antigen by any route [illegible] after parental administration
- [illegible]
Signs & symptoms
[illegible]

Anaphylaxis

After the tooth is removed, lingual plate is grasped with hemostat & freed from soft tissue & removed. Smoothening of edge done by bone file, wound irrigated & sutured.

2) Splitting of tooth / [illegible]

Mesioangular Impaction
- Distal half of the crown is sectioned off from the buccal groove till the CEJ from buccal to lingual & extracted [illegible]
- A straight elevator is placed in the [illegible] & rotated to fracture the distal portion of the crown which is removed. [illegible]

3) [illegible]
- [illegible] elevator [illegible]
- [illegible] elevator

Chisel & Mallet technique
1st step - for mandibular/maxillary molar, the 1st step is the placement of [illegible]
2nd step - [illegible]

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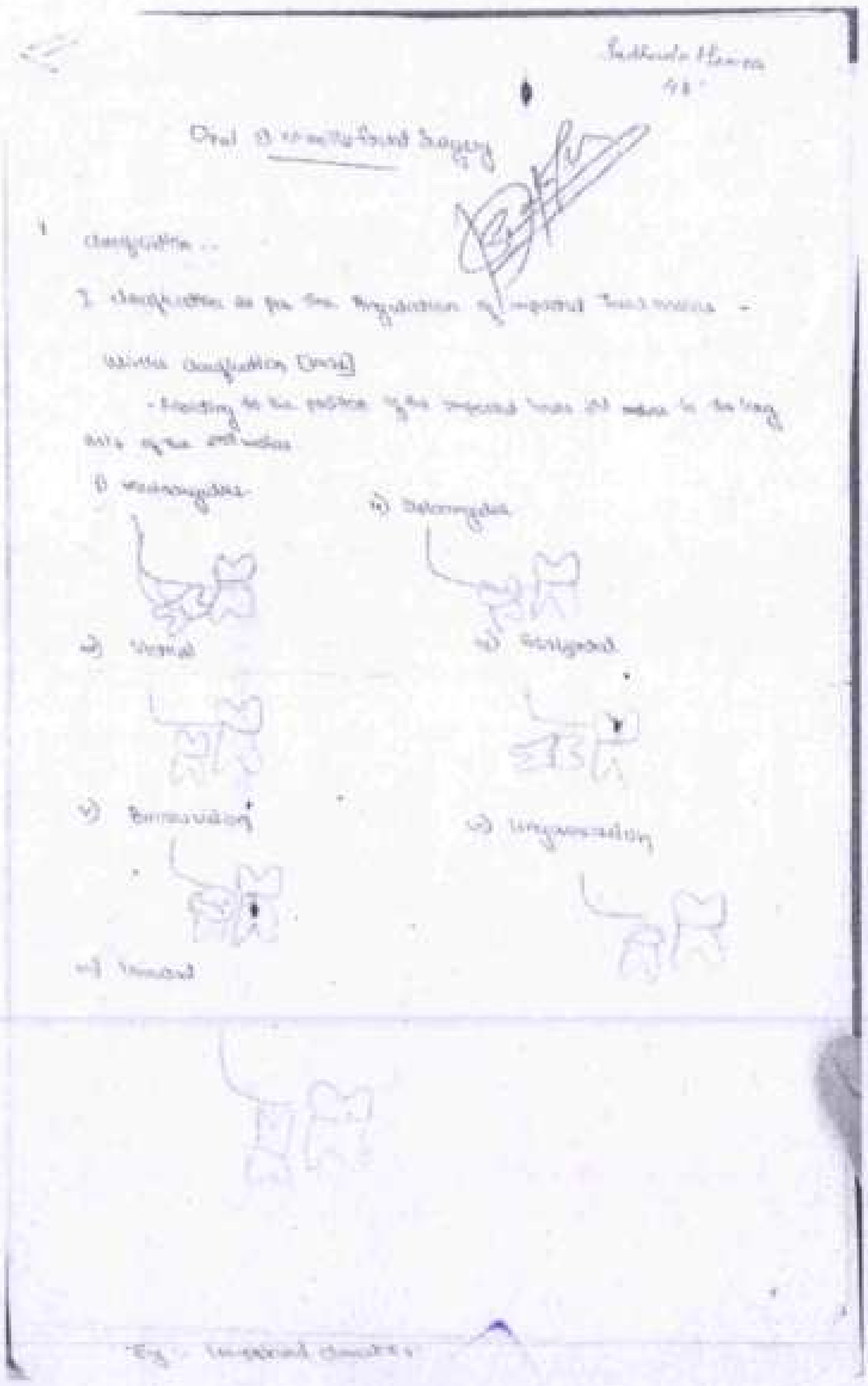


Sadhika Hamza
4B

Oral & maxillofacial Surgery

Classification..

I. Classification as per the angulation of impacted third molars -

Winter's classification [1926]

- According to the position of the impacted tooth in relation to the long axis of the 2nd molar

i) Mesioangular

ii) Distoangular

iii) Vertical

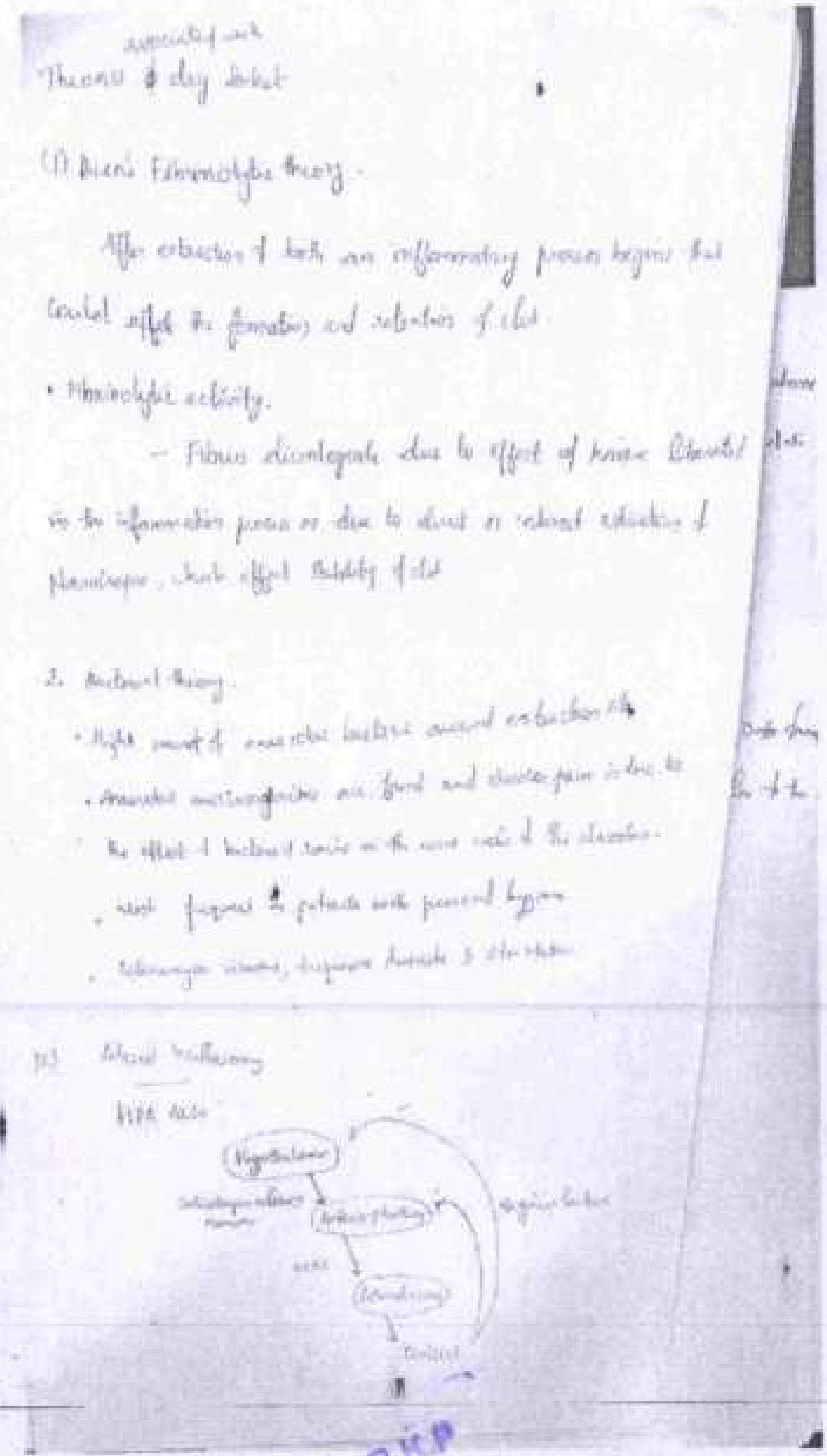
iv) Horizontal

v) Buccoversion

vi) Linguoversion

vii) Inverted

Eg:- Impacted canines



Theories of dry socket
associated with

(1) Birn's Fibrinolytic theory.

After extraction of tooth an inflammatory process begins that could affect the formation and retention of clot.

- Fibrinolytic activity.
  - Fibrin disintegrate due to effect of kinase liberated in the inflammation process or due to direct or indirect activation of plasminogen, which affect stability of clot

2. Bacterial theory.

- Higher amount of anaerobic bacteria around extraction site
- Anaerobic microorganisms are found and cause pain is due to the effect of bacterial toxin on the nerve ends of the alveolus.
- Most frequent in patients with poor oral hygiene
- [illegible]

(3) [illegible]

HPA axis

Hypothalamus

Anterior pituitary

ACTH

Cortisol

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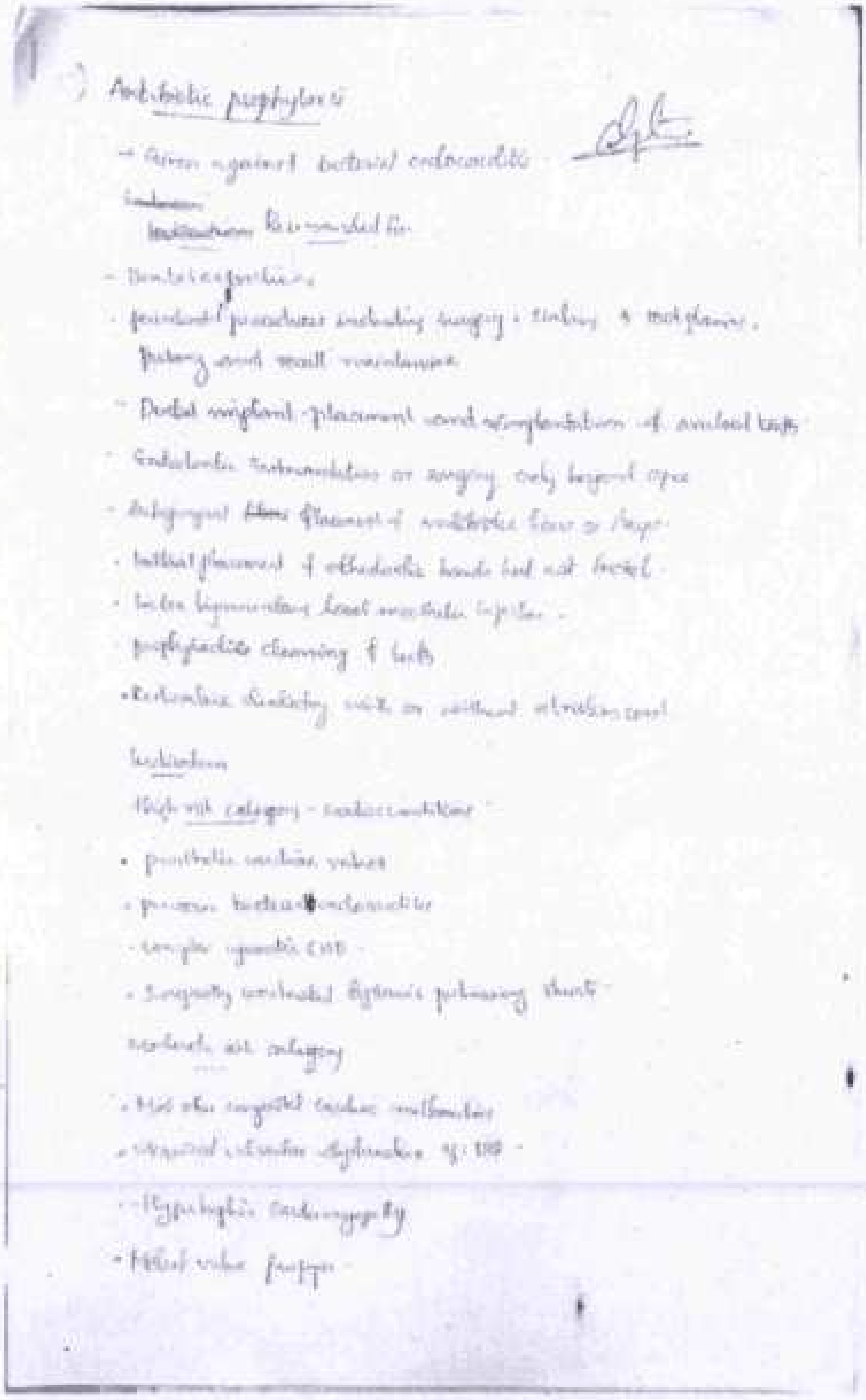


Antibiotic prophylaxis

- Given against bacterial endocarditis

~~Indication~~ Recommended for

- Dental extraction
- periodontal procedures including surgery, scaling & root planing, probing and recall maintenance
- Dental implant placement and replantation of avulsed teeth
- Endodontic instrumentation or surgery only beyond apex
- Subgingival ~~[illegible]~~ placement of antibiotic fibers or strips
- Initial placement of orthodontic bands but not brackets
- Intraligamentary local anaesthetic injection
- prophylactic cleaning of teeth
- Restorative dentistry with or without retraction cord

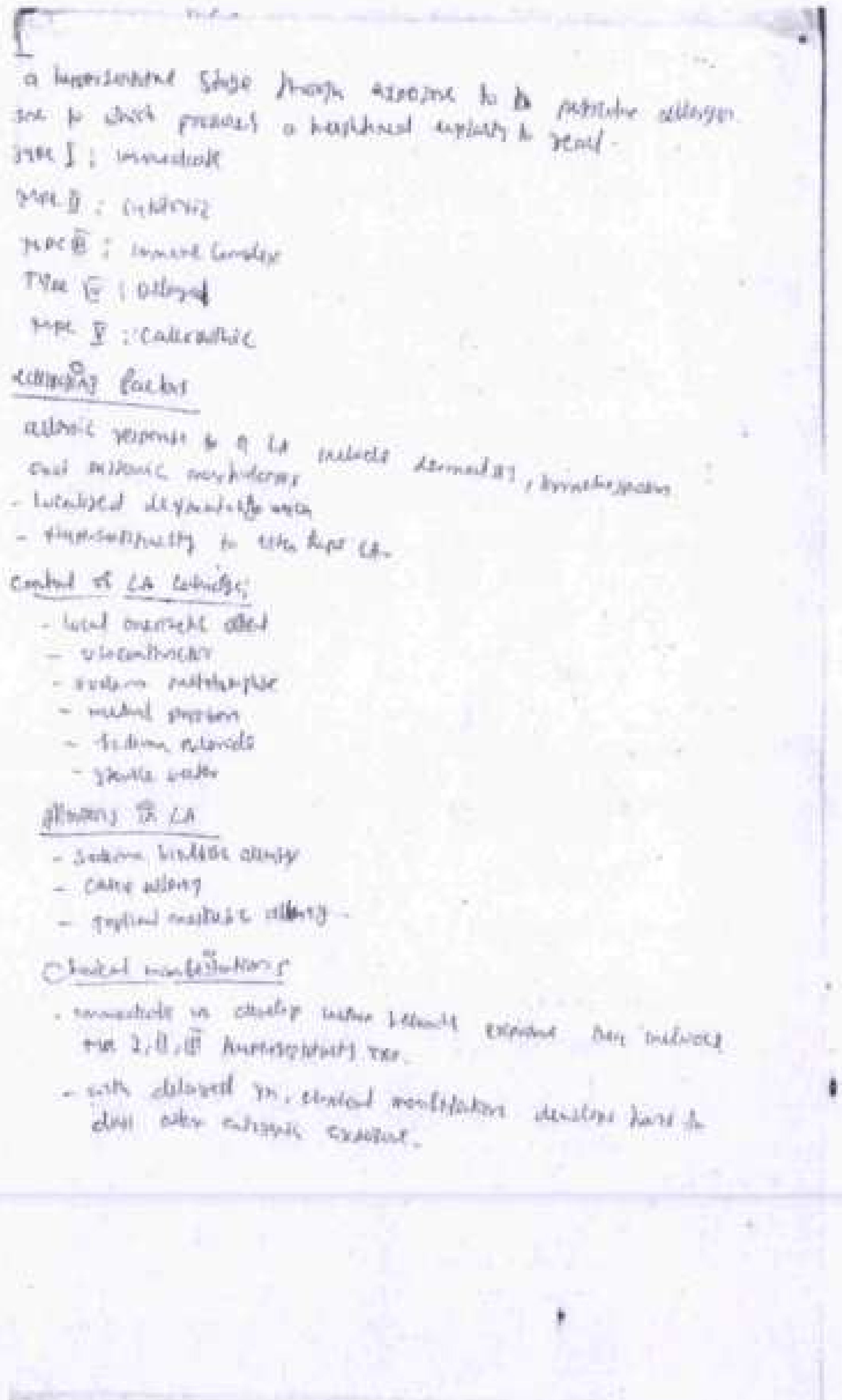
Indication

High risk category - cardiac condition

- prosthetic cardiac valves
- previous bacterial endocarditis
- complex cyanotic CHD
- Surgically constructed systemic pulmonary shunt

moderate risk category

- Most other congenital cardiac malformations
- Acquired valvular dysfunction eg: RHD
- Hypertrophic cardiomyopathy
- Mitral valve prolapse



a hypersensitive state acquired through exposure to a particular allergen, re-exposure to which produces a heightened capacity to react.

Type I : immediate
Type II : cytotoxic
Type III : immune complex
Type IV : delayed
Type V : [illegible]

[illegible] factors

allergic response to a LA include dermatitis, bronchospasm and systemic anaphylaxis
- localised allergic reaction
- hypersensitivity to ester type LA.

Content of LA cartridge:
- local anesthetic agent
- vasoconstrictor
- sodium metabisulfite
- methyl paraben
- sodium chloride
- sterile water

Allergy to LA
- sodium bisulfite allergy
- latex allergy
- topical anesthetic allergy

Clinical manifestations
- immediate rxn develop within 1 hour exposure and includes type I, II, III hypersensitivity rxn.
- with delayed rxn, clinical manifestation develops hours to days after antigenic exposure.

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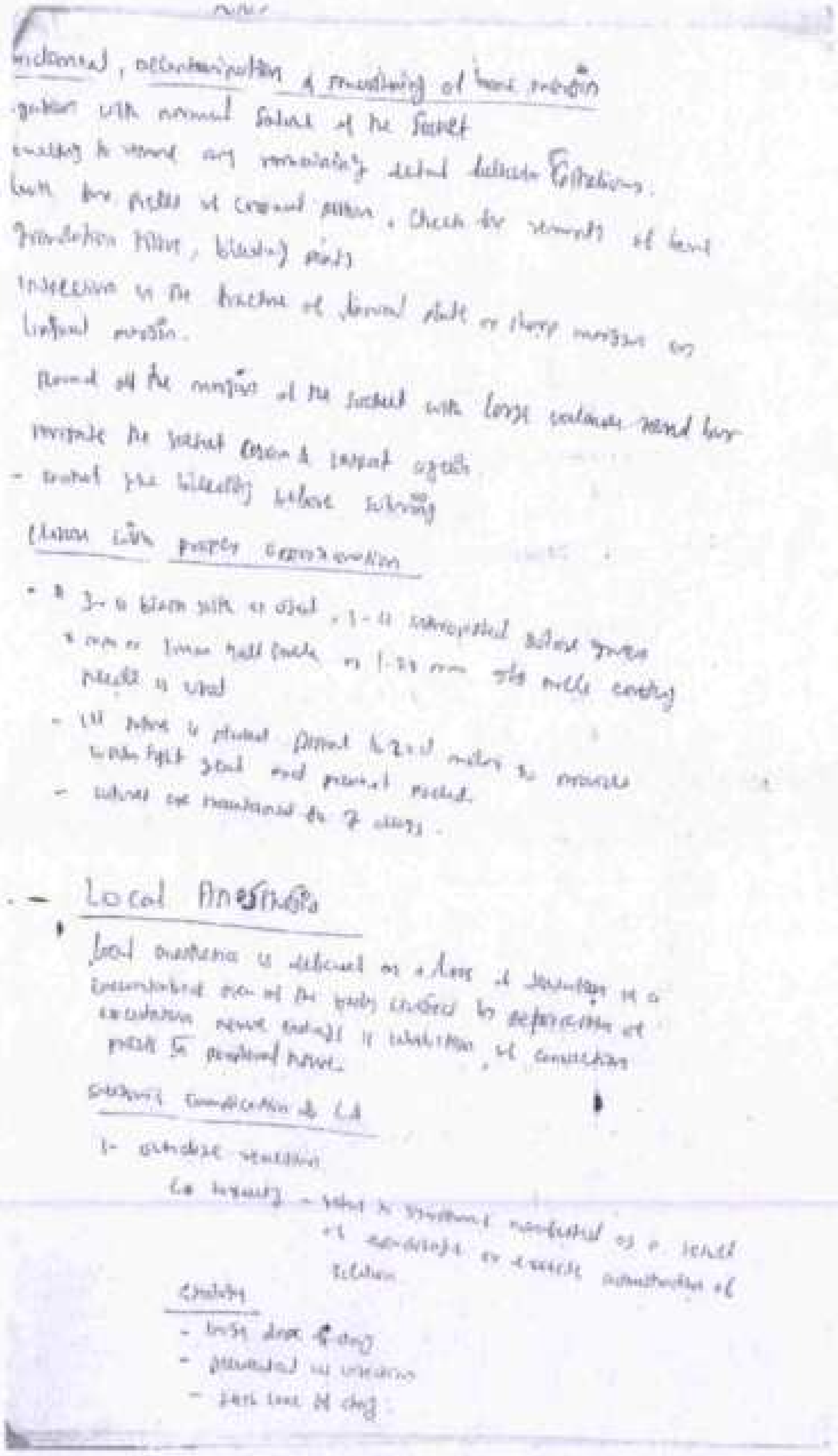


incidental, decontamination & smoothing of bone margin
irrigation with normal saline of the socket
curetting to remove any remaining dental follicle Epithelium;
with the help of curved curette. Check for remnants of bone
granulation tissue, bleeding points
Inspection of the fracture of lingual plate or sharp margins on
lingual margin.

Round off the margins of the socket with large volume round bur
Irrigate the socket once & inspect again
- control the bleeding before suturing

Closure with proper approximation

- 3-0 black silk is used, 3-0 atraumatic suture given
  3 mm or 3 mm half circle or 1-22 mm 3/8 circle cutting needle is used
- 1st suture is placed distal to 2nd molar to approximate the flap and prevent pocket
- sutures are maintained for 7 days.

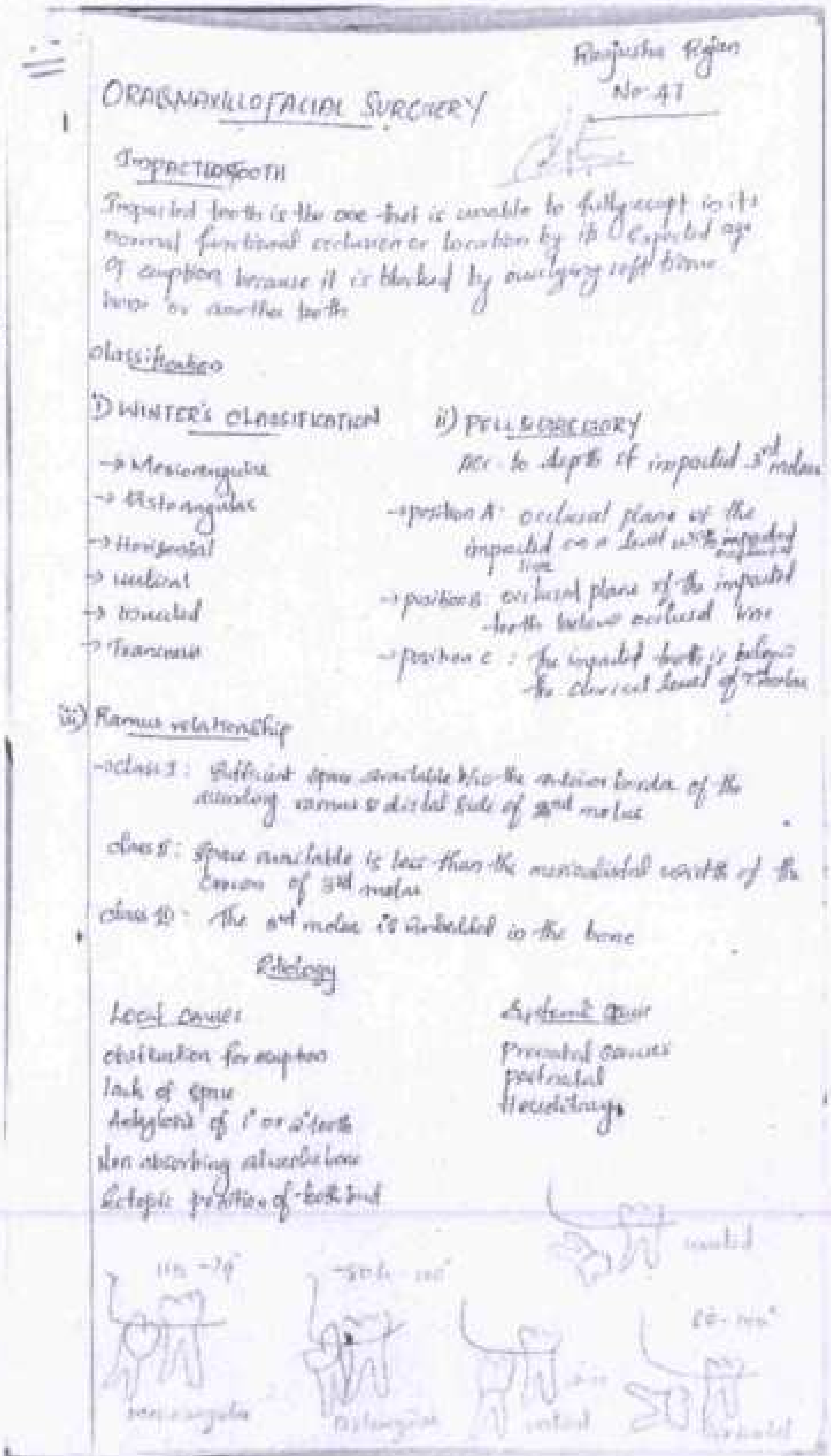
- Local Anesthesia

Local anesthesia is defined as a loss of sensation in a circumscribed area of the body caused by depression of excitation in nerve endings or inhibition of conduction process in peripheral nerve.

Systemic complication of LA

1- overdose reaction
(a) toxicity - state of systemic manifestation of a overdose or excessive administration of [illegible] relation

Etiology
- large dose of drug
- intravascular injection
- fast rate of drug



Rajusha Rajan
No-47

ORAL&MAXILLOFACIAL SURGERY

IMPACTED TOOTH

Impacted tooth is the one that is unable to fully erupt into its normal functional occlusion or location by its expected age of eruption because it is blocked by overlying soft tissue bone or another tooth

classification

i) WINTER'S CLASSIFICATION
→ Mesioangular
→ Distoangular
→ Horizontal
→ vertical
→ Inverted
→ Transverse

ii) PELL & GREGORY
Acc. to depth of impacted 3rd molar
- position A: occlusal plane of the impacted on a level with the occlusal line
- position B: occlusal plane of the impacted tooth below occlusal line
- position C: the impacted tooth is below the cervical level of 2nd molar

iii) Ramus relationship
- class I: Sufficient space available b/w the anterior border of the ascending ramus & distal side of 2nd molar
class II: space available is less than the mesiodistal width of the crown of 3rd molar
class III: The 3rd molar is embedded in the bone

Etiology

Local causes
obstruction for eruption
lack of space
Ankylosis of 1° or 2° teeth
Non absorbing alveolar bone
Ectopic position of tooth bud

Systemic cause
Prenatal causes
postnatal
Hereditary

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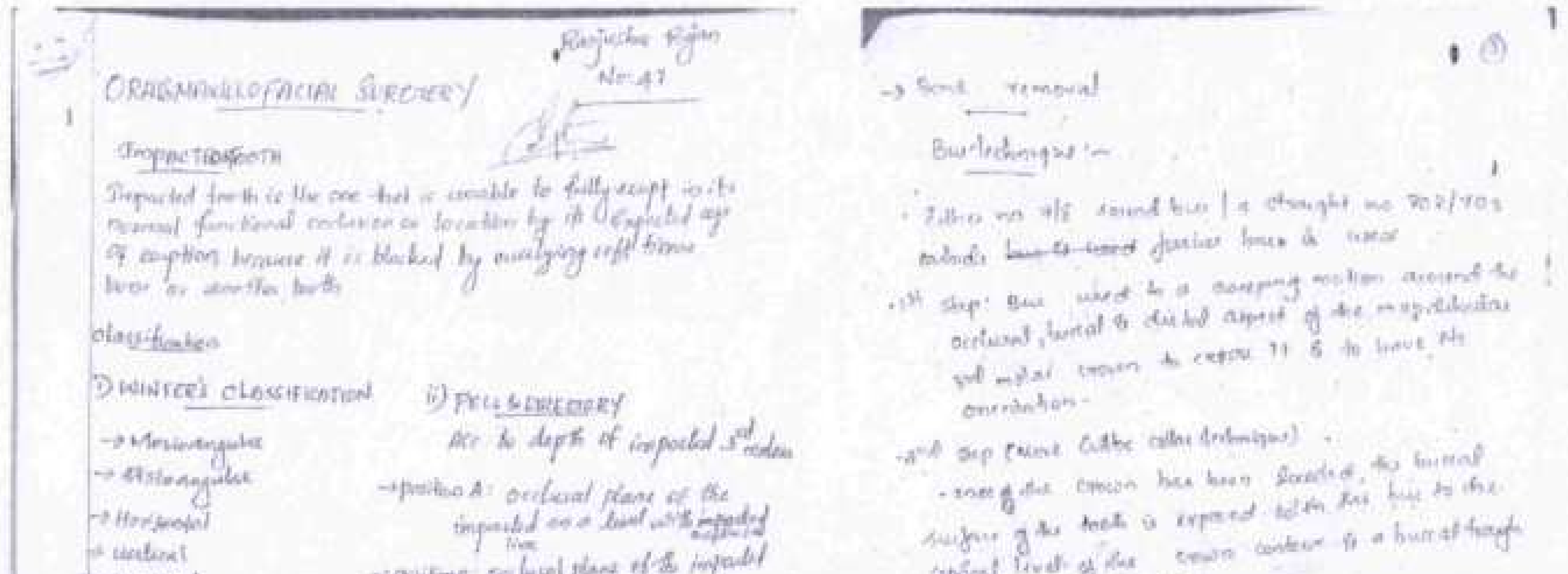
Rapid Revision and Revision Tests Before University Examinations: Prior to tests, special review sessions are planned to swiftly go over the syllabus, emphasizing important subjects. Revision tests help students practice time management by simulating exam situations.



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ORALMAXILLOFACIAL SURGERY

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obstruction for eruption
lack of space
ankylosis of 1° or 2° teeth
[illegible] alveolar bone
ectopic position of tooth bud

Systemic cause
Prenatal causes
postnatal
Hereditary

③

→ Bone removal

Bur technique :-

- [illegible] [illegible] round bur / a straight no 702/703 [illegible] ~~[illegible]~~ [illegible] bone & [illegible]
- 1st step: Bur used to a sweeping motion around the occlusal, buccal & distal aspect of the [illegible] crown & expose it & to have the [illegible]
- 2nd step (Moore Gillbe collar technique):
  - once the crown has been located, the buccal surface of the tooth is exposed [illegible] the [illegible] to the cervical level of the crown contour & a buccal trough or gutter/collar created.

→ Splitting of tooth / root odontectomy

mesioangular impaction:
- distal half of the crown is cut off from the buccal groove till the CEJ from buccal to lingual and extended [illegible] furcation.
- straight elevator is placed in the cut & rotated to fracture the distal portion of the crown which is removed;
- straight elevator is placed on the mesial aspect of 3rd molar below cervical line.
- [illegible] point at [illegible] crown at [illegible] fine angle with a small [illegible] bur
- Cryer elevator used to elevate tooth

→ Elevators
- Coupland elevator : at base of crown
- Winter Cryer ; used in [illegible] action / buccal elevator

→ Debridement, decontamination & smoothening of bone margins :-
- irrigation with normal saline of the socket
- curetting to remove any remaining dental follicle & epithelium

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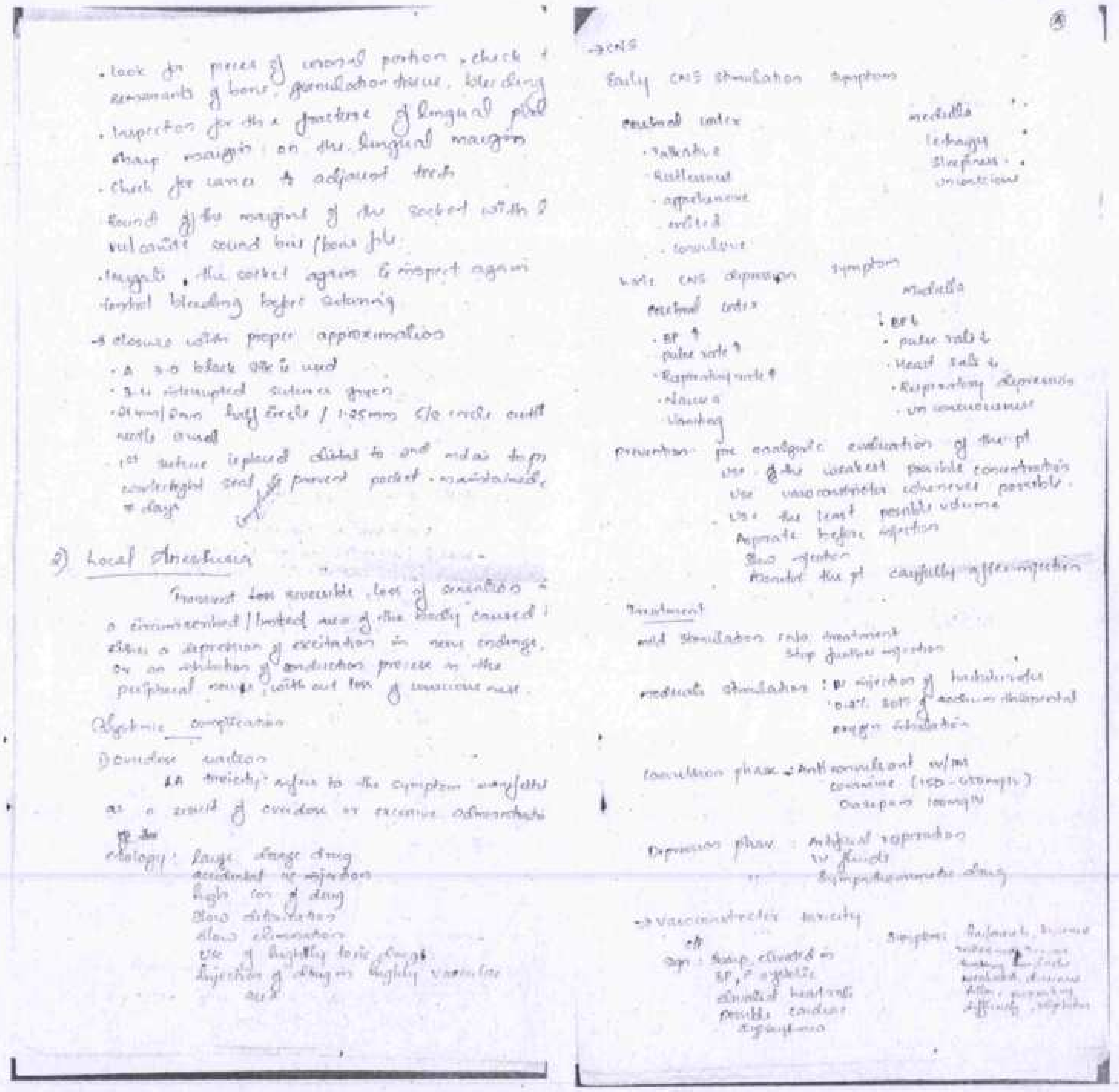

- look for pieces of coronal portion, check & remnants of bone, granulation tissue, bleeding
- Inspection for the fracture of lingual plate, sharp margin on the lingual margin
- check for caries to adjacent teeth

Round off the margin of the socket with a vulcanite round bur / bone file.

- Irrigate the socket again & inspect again control bleeding before suturing

→ closure with proper approximation
- A 3-0 black silk is used
- 3-4 interrupted sutures given
- 24mm/26mm half circle / 1.25mm 3/8 circle cutting needle used
- 1st suture is placed distal to 2nd molar to form watertight seal to prevent pocket. maintained 7 days

completed

2) Local Anaesthesia

"Transient and reversible loss of sensation in a circumscribed / limited area of the body caused by either a depression of excitation in nerve endings, or an inhibition of conduction process in the peripheral nerves, without loss of consciousness.

Systemic complication

1) Overdose reaction

LA toxicity refers to the symptom manifested as a result of overdose or excessive administration ~~of the~~

etiology: Large dosage drug
accidental IV injection
high con of drug
slow detoxification
slow elimination
use of highly toxic drugs
Injection of drug in highly vascular area

8

→ CNS

Early CNS stimulation symptoms

cerebral cortex
- Talkative
- Restlessness
- apprehensive
- excited
- convulsive

medulla
- lethargy
- sleepiness
- unconscious

Late CNS depression symptom

cerebral cortex
- BP ↑
- pulse rate ↑
- Respiratory rate ↑
- Nausea
- Vomiting

medulla
- ↓ BP ↓
- pulse rate ↓
- Heart rate ↓
- Respiratory depression
- unconsciousness

prevention: pre anaesthetic evaluation of the pt
use of the weakest possible concentration
use vasoconstrictor whenever possible.
use the least possible volume
Aspirate before injection
Slow injection
Monitor the pt carefully after injection

Treatment

mild stimulation: no treatment
stop further injection

moderate stimulation: IV injection of barbiturates
0.4% soln of sodium thiopental
oxygen inhalation

convulsion phase: Anticonvulsant IV/IM
[illegible] (150-450mg/h)
Diazepam 10mg IV

Depression phase: Artificial respiration
IV fluids
Sympathomimetic drug

→ Vasoconstrictor toxicity

Sign: sharp elevated in BP, ↑ systolic
elevated heart rate
possible cardiac dysrhythmia

Symptoms: Palpitation, [illegible], [illegible], throbbing headache, weakness, dizziness, pallor, respiratory difficulty, palpitation

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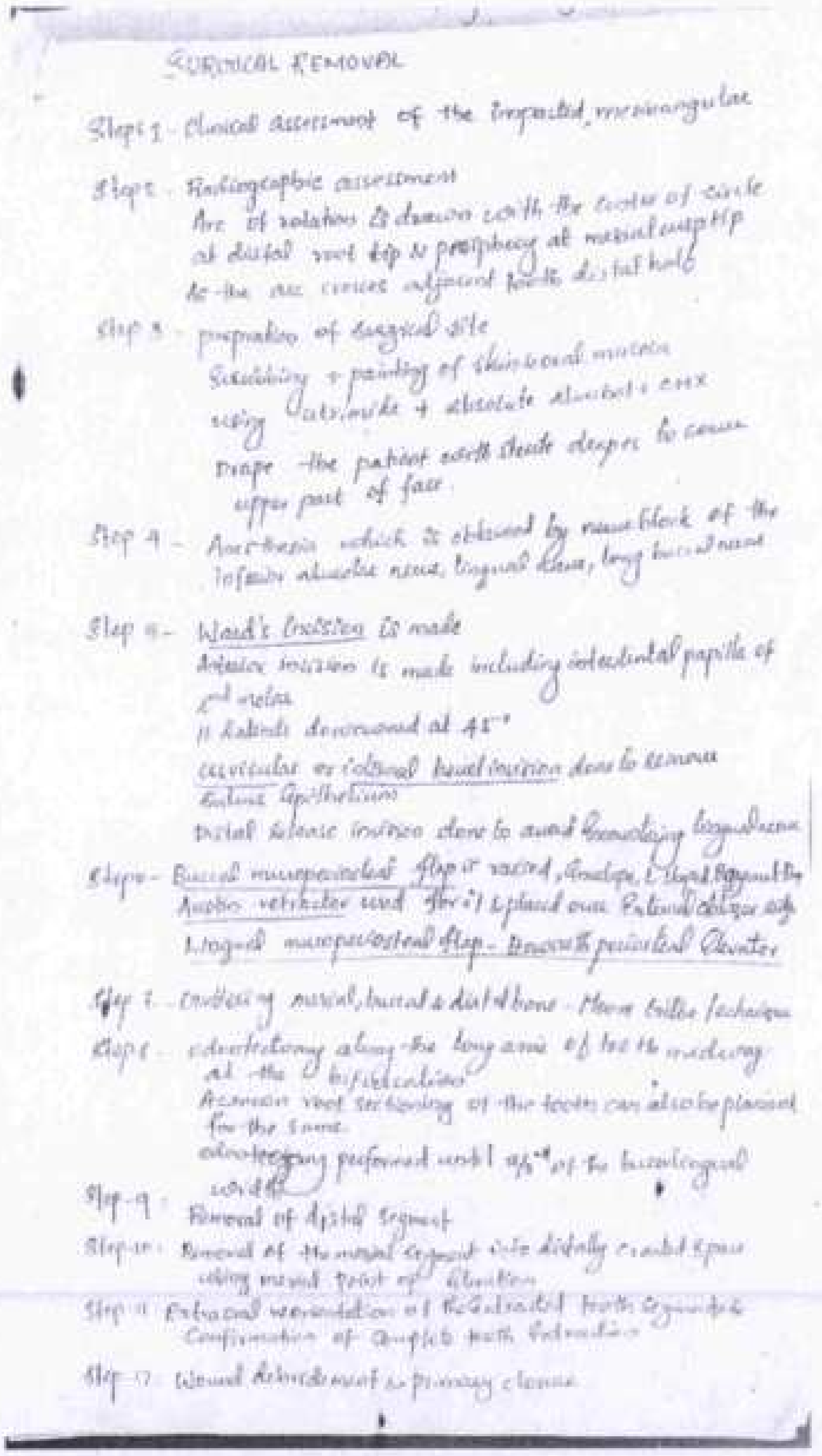


SURGICAL REMOVAL

Step 1 - Clinical assessment of the impacted mesioangular

Step 2 - Radiographic assessment
Arc of rotation is drawn with the center of circle at distal root tip & periphery at mesial cusp tip
As the arc crosses adjacent tooth distal half

Step 3 - preparation of surgical site
Scrubbing + painting of skin and mucosa using Cetrimide + absolute alcohol + CHX
Drape the patient with sterile drapes to cover upper part of face

Step 4 - Anesthesia which is obtained by nerve block of the Inferior alveolar nerve, lingual nerve, long buccal nerve

Step 5 - Ward's incision is made
Anterior incision is made including interdental papilla of 2nd molar
It extends downward at 45°
Crevicular or sulcular buccal incision done to remove sulcular epithelium
Distal release incision done to avoid damaging lingual nerve

Step 6 - Buccal mucoperiosteal flap is raised, envelope, [illegible] Austin retractor used [illegible] placed over [illegible] lingual mucoperiosteal flap - Howarth periosteal elevator

Step 7 - Guttering mesial, buccal & distal bone - Moore Gillbe technique

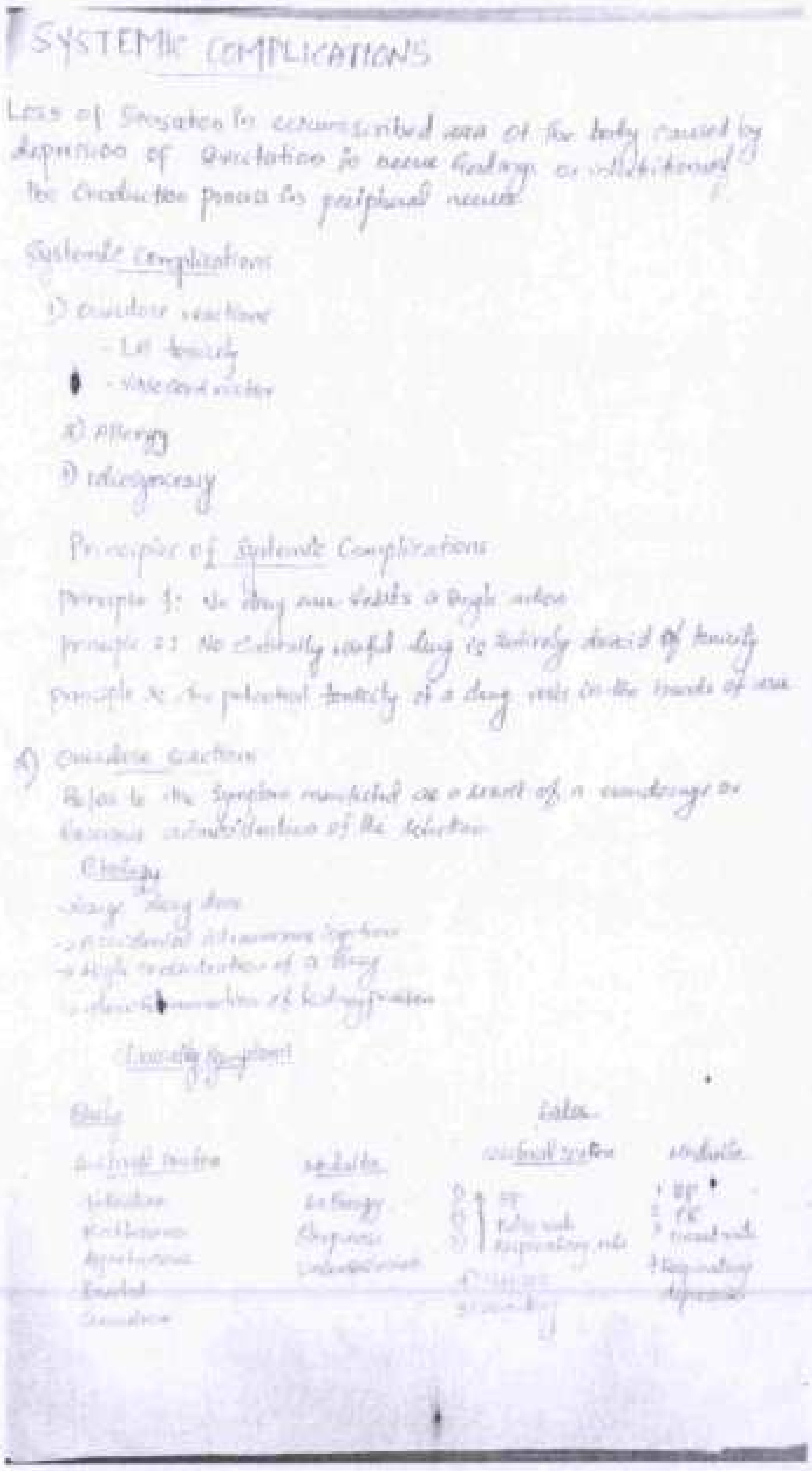
Step 8 - Odontotomy along the long axis of tooth [illegible] at the bifurcation
A common root sectioning of the tooth can also be planned for the same
Odontotomy performed until 3/4th of the buccolingual width

Step 9 - Removal of distal segment

Step 10 - Removal of the mesial segment into distally created space using mesial point of elevation

Step 11 - Extraoral examination of the extracted tooth segments & confirmation of complete tooth extraction

Step 12 - Wound debridement & primary closure



SYSTEMIC COMPLICATIONS

Loss of sensation in circumscribed area of the body caused by depression of excitation in nerve endings or inhibition of the conduction process in peripheral nerves

Systemic complications
1) Overdose reactions
- LA toxicity
- Vasoconstrictor
2) Allergy
3) Idiosyncrasy

Principles of Systemic Complications
Principle 1: No drug ever exerts a single action
Principle 2: No clinically useful drug is entirely devoid of toxicity
Principle 3: The potential toxicity of a drug rests in the hands of user

1) Overdose reaction
Refers to the symptoms manifested as a result of an overdosage or excessive administration of the solution

Etiology
- Large drug dose
- Accidental intravascular injection
- High concentration of a drug
- Slow biotransformation of [illegible]

Clinically symptoms

Early
Central nervous system
Talkative
Excitedness
Apprehension
Slurred
Convulsion

Vitals
Lethargy
Drowsiness
Unconsciousness

Late
Central nervous system
1) [illegible]
2) [illegible]
3) respiratory rate
[illegible]

Vitals
1 BP
2 PR
3 heart rate
4 Respiratory depression

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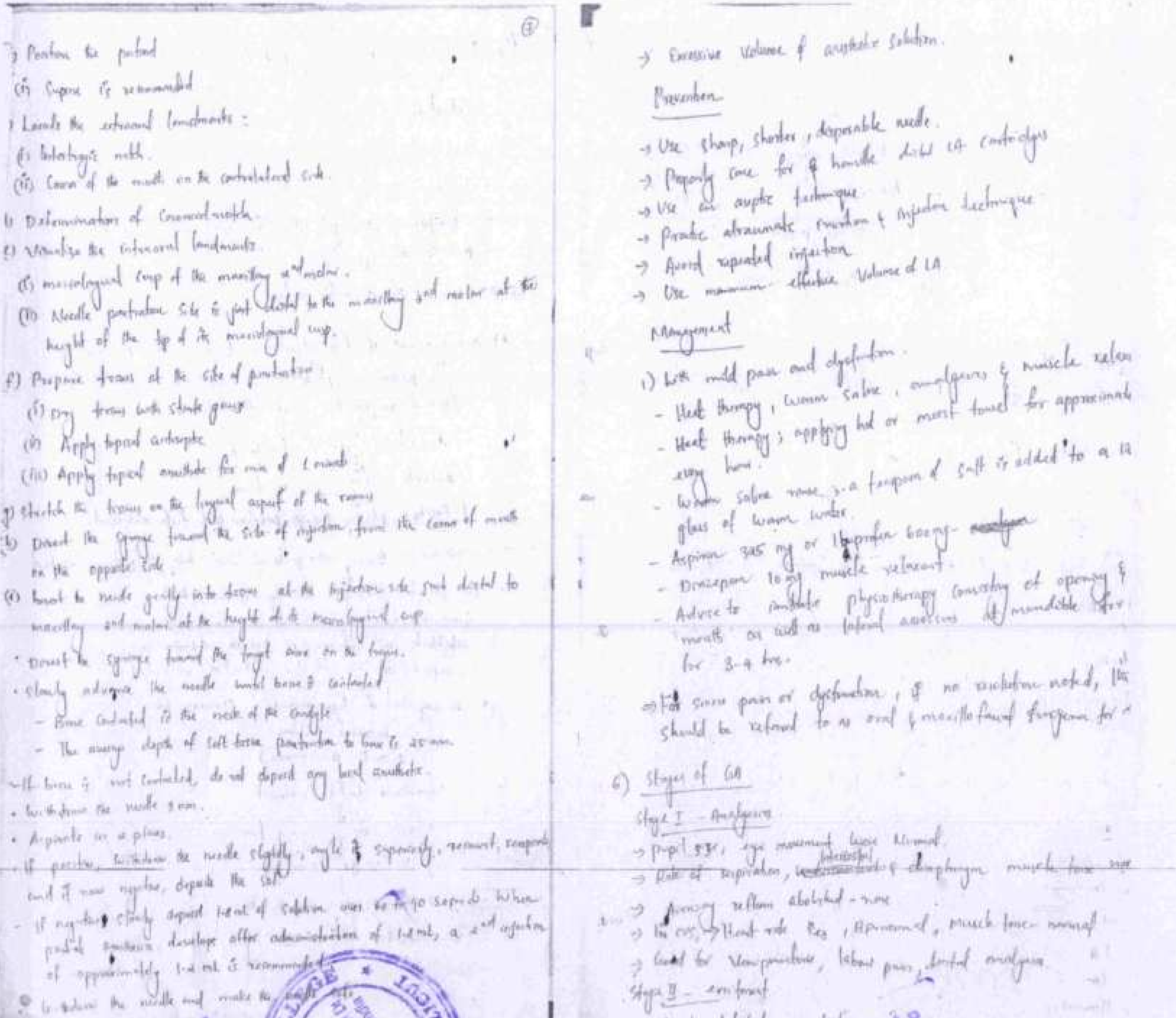
Provision of Special Notes: Slow performers are given specialized study tools, such as condensed notes and summaries, to help them comprehend and remember important ideas.



⑦

a) Position the patient
(i) Supine is recommended
b) Locate the extraoral landmarks:
(i) Intertragic notch.
(ii) Corner of the mouth on the contralateral side.
c) Determination of coronoid notch.
d) Visualize the intraoral landmarks.
(i) mesiolingual cusp of the maxillary 2nd molar.
(ii) Needle penetration site is just distal to the maxillary 2nd molar at the height of the tip of its mesiolingual cusp.
f) Prepare tissues at the site of penetration
(i) Dry tissues with sterile gauze
(ii) Apply topical antiseptic
(iii) Apply topical anesthetic for min of 1 minute.
g) Stretch the tissues on the lingual aspect of the ramus
h) Direct the syringe toward the side of injection from the corner of mouth on the opposite side
(i) Insert the needle gently into tissue at the injection site just distal to maxillary 2nd molar at the height of its mesiolingual cusp
- Direct the syringe toward the target area on the tragus.
- Slowly advance the needle until bone is contacted
  - Bone contacted is the neck of the condyle
  - The average depth of soft tissue penetration to bone is 25 mm.
- If bone is not contacted, do not deposit any local anesthetic.
- Withdraw the needle 1 mm.
- Aspirate in 2 planes.
- If positive, withdraw the needle slightly, angle it superiorly, reinsert, reaspirate and if now negative, deposit the soln
- If negative, slowly deposit 1.8 mL of solution over 60 to 90 seconds. When partial anesthesia develops after administration of 1.8 mL, a 2nd injection of approximately 1-2 mL is recommended.
- Withdraw the needle and make the syringe safe.

→ Excessive volume of anesthetic solution.

Prevention
→ Use sharp, sterile, disposable needle.
→ Properly care for & handle dental LA cartridges
→ Use an aseptic technique
→ Practice atraumatic insertion & injection technique
→ Avoid repeated injection
→ Use minimum effective volume of LA

Management
1) With mild pain and dysfunction.
- Heat therapy, warm saline, analgesics & muscle relaxants
- Heat therapy: applying hot or moist towel for approximately every hour.
- Warm saline rinse: a teaspoon of salt is added to a 12 glass of warm water.
- Aspirin 325 mg or Ibuprofen 600 mg ~~analgesic~~
- Diazepam 10 mg muscle relaxant.
- Advice to institute physiotherapy consisting of opening & closing mouth as well as lateral excursions of mandible for 3-4 hrs.
⇒ For severe pain or dysfunction, if no resolution noted, the patient should be referred to an oral & maxillofacial surgeon for ...

6) Stages of GA
Stage I - Analgesia
→ pupil size, eye movement, lower normal.
→ Rate of respiration, intercostal & diaphragm muscle tone normal
→ Airway reflexes abolished - none
→ In CVS, → Heart rate Reg, BP normal, muscle tone normal
→ Used for venipuncture, labour pain, dental analgesia
Stage II - excitement
→ Reflexes abolished -- eyelashes

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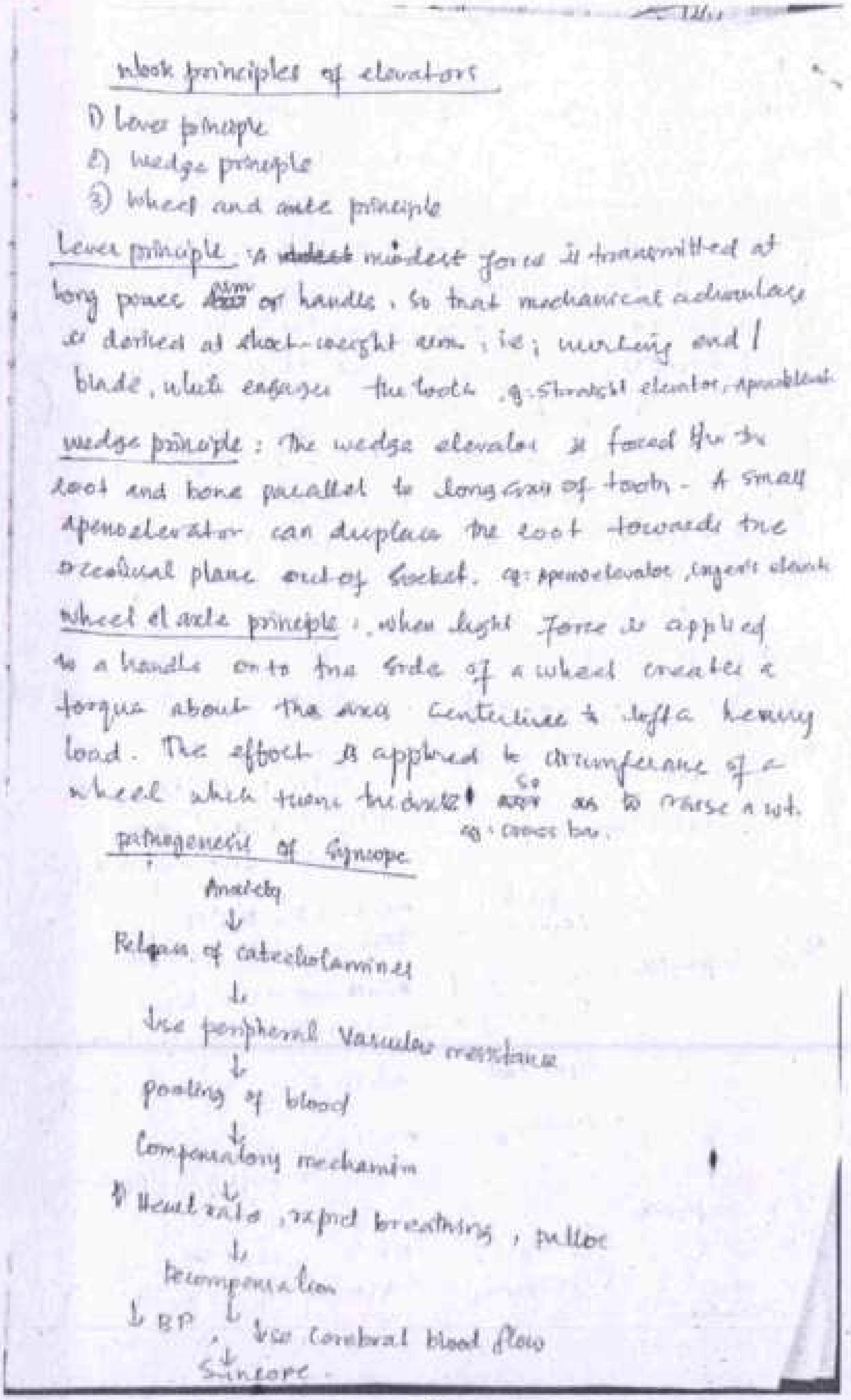


Mech principles of elevators

1) Lever principle
2) Wedge principle
3) Wheel and axle principle

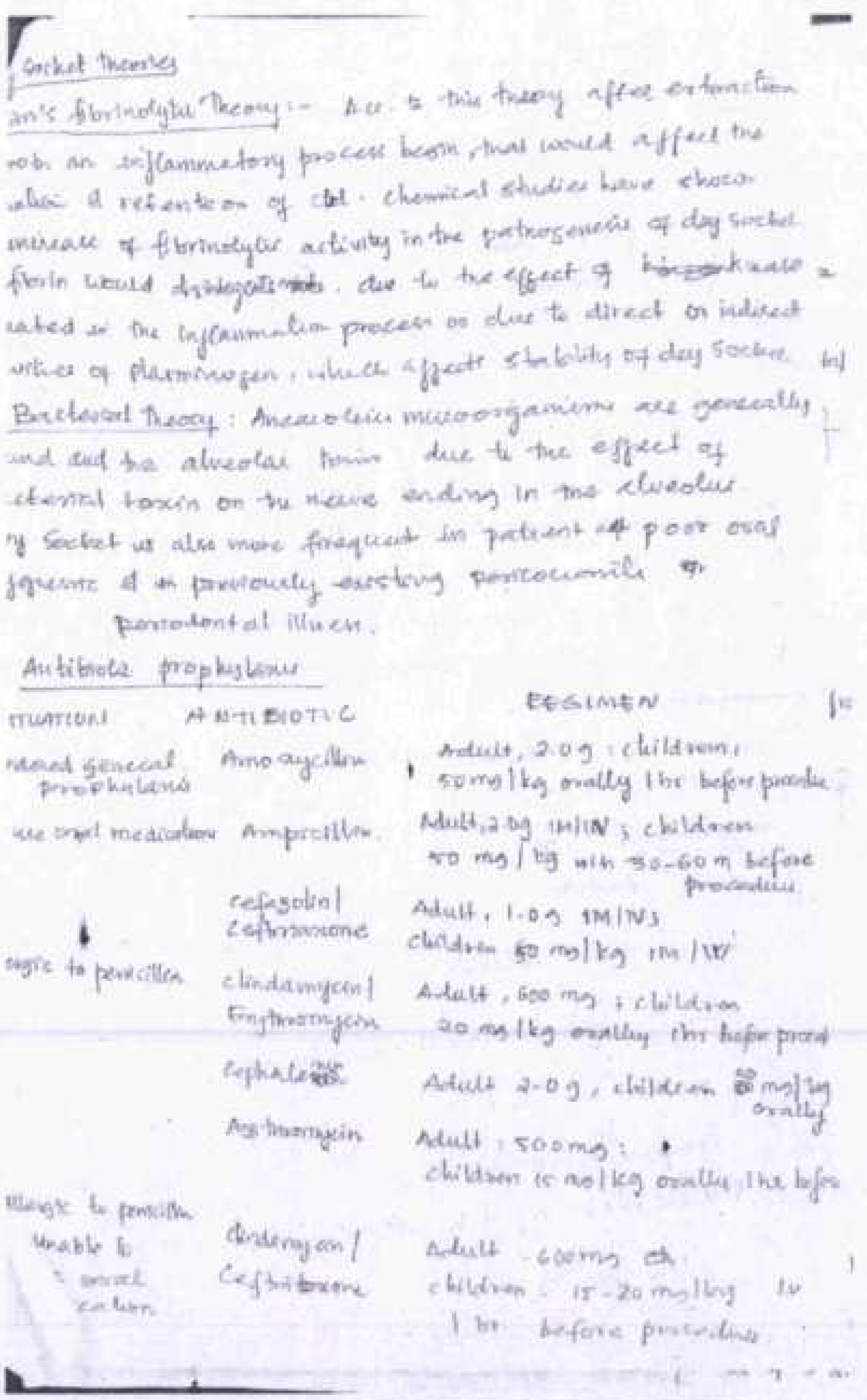
Lever principle : A modest force is transmitted at long power arm or handle, so that mechanical advantage is derived at short-weight arm ; ie; working end / blade, which engages the tooth. eg: Straight elevator, Apexo elevator

Wedge principle : The wedge elevator is forced b/w the root and bone parallel to long axis of tooth. A small Apexoelevator can displace the root towards the occlusal plane out of socket. eg: Apexoelevator, Coupland's elevator

Wheel et axle principle : when light force is applied to a handle onto the side of a wheel creates a torque about the axis centerline to lift a heavy load. The effect is applied to circumference of a wheel which turns the axle so as to raise a wt. eg: Cross bar.

pathogenesis of Syncope

Anxiety
↓
Release of catecholamines
↓
↓se peripheral vascular resistance
↓
pooling of blood
↓
Compensatory mechanism
↓
↑ Heart rate, rapid breathing, pallor
↓
Decompensation
↓
↓ BP, ↓se cerebral blood flow
↓
Syncope.



Socket theories

Birn's fibrinolytic theory :- Acc. to this theory after extraction with an inflammatory process begin, that would affect the alveolar retention of clot. chemical studies have shown increase of fibrinolytic activity in the pathogenesis of dry socket. fibrin would disintegrate. due to the effect of kinase activated in the inflammation process or due to direct or indirect action of plasminogen, which affects stability of dry socket.

Bacterial theory : Anaerobic microorganisms are generally ... and cut the alveolar tissue due to the effect of external toxin on the nerve ending in the alveolus of socket is also more frequent in patient of poor oral hygiene & in previously existing pericoronitis or periodontal illness.

Antibiotic prophylaxis

SITUATION	ANTIBIOTIC	REGIMEN
need general prophylaxis	Amoxycillin	Adult, 2.0 g : children, 50 mg/kg orally 1 hr before procedure
use oral medication	Ampicillin	Adult, 2.0 g IM/IV ; children 50 mg/kg with 30-60 m before procedure
	cefazolin/ Ceftriaxone	Adult, 1.0 g IM/IV ; children 50 mg/kg IM/IV
allergic to penicillin	clindamycin/ Erythromycin	Adult, 600 mg ; children 20 mg/kg orally 1 hr before proced
	Cephalexin	Adult 2.0 g, children 50 mg/kg orally
	Azithromycin	Adult : 500 mg ; children 15 mg/kg orally 1 hr before
allergic to penicillin unable to take oral medication	clindamycin/ Ceftriaxone	Adult 600 mg ... children 15-20 mg/kg IV 1 hr before procedure

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Customized Learning Plans: Tailored learning plans are designed to cater to specific learning styles, pace, and requirements, ensuring a more personalized learning experience.

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DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY

LESSON PLAN				
Lesson Title:	**Teacher**	**Subject**	**Batch**	**Date**
Local Anesthesia	Dr Sunu VS	OMFS	III BDS	14/08/2023

Goal : To make students aware of local anesthesia and techniques of L.A

Learning outcome/ objectives: At the end of the class the student should be able to understand:

1. The techniques of LA
2. Team approach and interdisciplinary care
3. How to approach a question in theory exam and viva

Prerequisite Concepts and Skills: The student is required to know about local anesthesia

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Materials and Resources:

Teacher	Students
• Power point presentation prepared on multiple referances • Black board	• Note book

Lesson Activities:

Teacher Activities	Student Activities	Time
• Introduction (anticipatory set): • Classification of local anesthetic agents • Ideal requirements • Mechanism of action Armamentarium required • Types of local anaesthesia • Use of vaso constrictors in local anesthetic solution -Advantages, contra-indications • Various vaso constrictors used. • Anatomy of trigeminal nerve Anaesthesia of the mandible Intra Inferior Alveolar Nerve Block • Mental nerve block • Gow gates technique • Variraniakinosi • Anaesthesia of Maxilla – Infiltrations, Infra - orbital nerve block, • Posterior superior alveolar nerve block, Infiltrations, Maxillary nerve block – Intra oral and extra oral TechniquesBody: Detailed description about individual medical conditions and their respective manifestation and their treatment procedures. • Complications of local anaesthesia- local and systemic • Closure: Conclusion about the special precautions need in local anesthesiabefore the surgical procedure. • Students will be encouraged to answer the puzzles and clinical photographs to assess that learning objective is achieved.	• Listen to the class • Make notes and write down important points • Answer the questions, puzzles and clinical photographs. • Performing LA techniques using dummy syringes	1 hour

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Strategies: Students are made sit comfortably. All students should have a proper view of power point display and black board. Question and contributions will be encouraged from the students.

Assessment and evaluation: At the end of the class students will be asked to answer the questions and evaluate few clinical photographs.

Extensions: The students will be able to link this topic with number of systemic /medical conditions and sequences and their treatment approach.

Differential instruction: Differentially able and gifted students will be challenged with the relevant questions and clinical puzzles.

Reflections: Feedback from students will be obtained about the class.

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REPORT ON TEST AND RETEST CONDUCTED FOR THE SLOW LEANERS

The Test and Retest Program was developed to support students who may require additional academic assistance, often categorized as "slow learners." The purpose of this program is to identify students who are struggling with course material, provide targeted intervention, and improve their understanding and performance through structured retesting.

Objectives of the Test and Retest Program

The primary objectives of the Test and Retest Program are to:

1. Identify students facing challenges in keeping up with the academic requirements.
2. Provide remedial support to enhance their understanding of essential concepts.
3. Assess progress through a retesting mechanism to track improvement.
4. Build confidence in students and reduce academic stress by offering a second opportunity for success.

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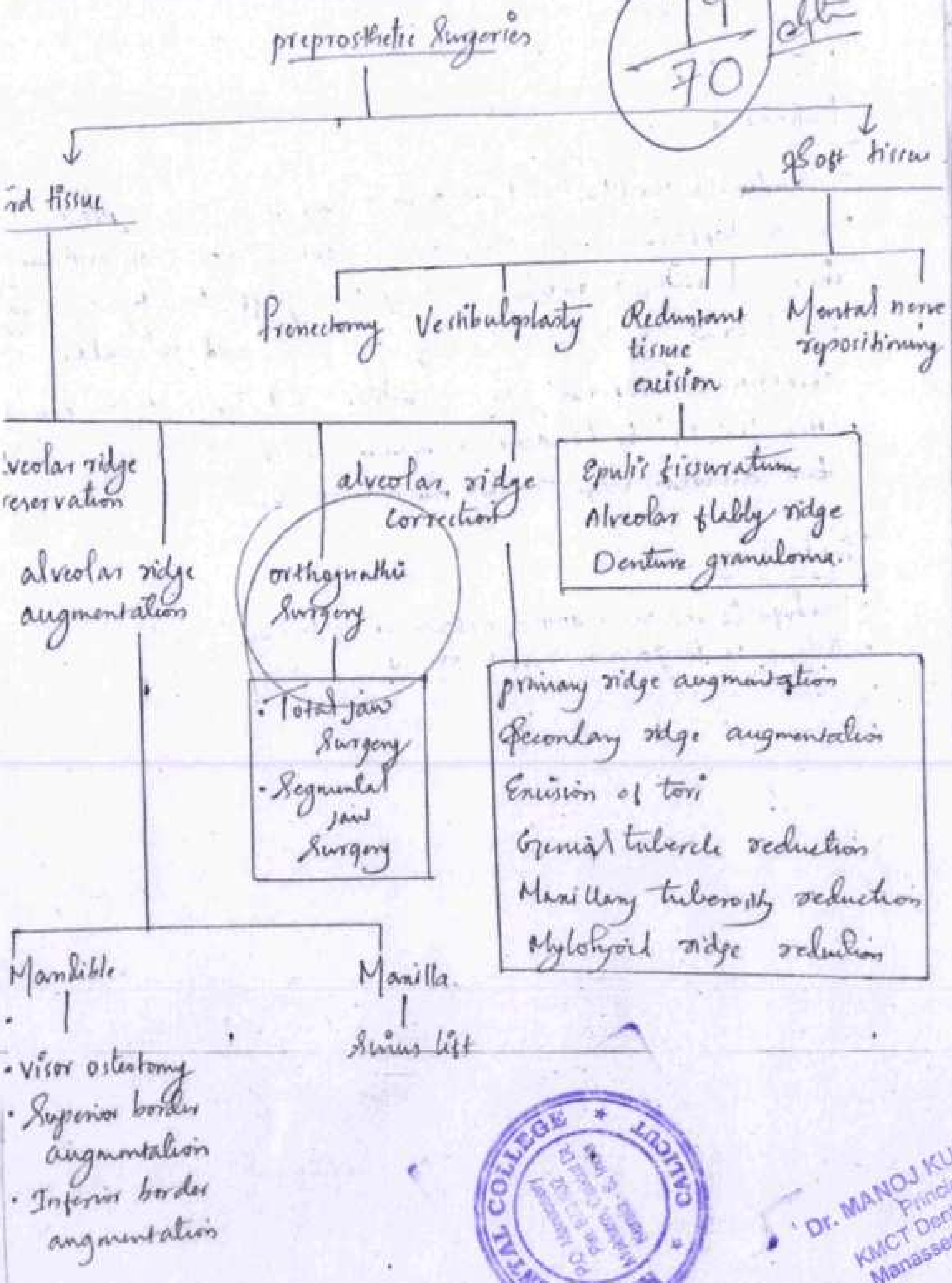
Oral and Maxillofacial
Surgery Model Examination

Bensiya Nazrin N
Roll No : 14

19
70


preprosthetic Surgeries
rd tissue
Soft tissue
Frenectomy
Vestibuloplasty
Redundant tissue excision
Mental nerve repositioning
Epulis fissuratum
Alveolar flabby ridge
Denture granuloma.
lveolar ridge reservation
alveolar ridge augmentation
alveolar ridge correction
orthognathic Surgery
• Total jaw Surgery
• Segmental jaw Surgery
primary ridge augmentation
Secondary ridge augmentation
Excision of tori
Genial tubercle reduction
Maxillary tuberosity reduction
Mylohyoid ridge reduction
Mandible
Maxilla
Sinus lift
• visor osteotomy
• Superior border augmentation
• Inferior border augmentation

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ORAL AND MAXILLOFACIAL SURGERY

Beniya Nazrin N
Roll. No 14

(22)

1 Odontogenic tumours (1992 classification)

22/70

odontogenic tumours

Epithelial	Mixed (Epithelial and Mesenchymal)	Mesenchymal
- Ameloblastoma	- Ameloblastic fibroma	- Odontogenic fibroma
- clear cell odontogenic tumours	- Odontoblastoma	- Odontogenic myxoma
- Calcified epithelial odontogenic tumour	- Adenomatoid odontogenic tumours	- Benign cementoblastoma
- Squamous odontogenic tumours	- Ameloblastic fibroodontoma	
- ~~Adenomatoid odontogenic tumour~~	- complex and compound odontoma	
	- Ameloblastic fibrodentinoma	

Ameloblastoma of Mandibular Angle Ramus Region

Contents

- Introduction
- etiology
- clinical features
- Radiographic features
- Diagnosis
- Management

Introduction

- epithelial odontogenic tumour
- Definition - unicentric, non-functional, intermittent in growth, anatomically benign, clinically persistent

Etiology

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Oral and Maxillofacial
Surgery Model Examination

Benziya Nazrin N
Roll No 14

27th May 2024

29+1.30
70

2 Ameloblastoma

- Odontogenic tumour

Definition

- Robinson defined ameloblastoma as unicentric, non-functional, intermittent in growth, anatomically benign, clinically persistent

Synonyms

- Adamantinoma

clinical features

- age 20 to 40 years of age
- Sex : Male affected more than female.
- Mandible is more affected than maxilla
- Within mandible, molar and Ramus region affected more.
- Slow growing, gradually increase in size
- It initially involves the cancellous bone and spreads in anteroposterior dimension and then advances buccally or lingually
- At the time, visible symptoms had started to appear it already had spread a large region
- Then causes gross deformity of face
- In the affected area, tooth movement and resorption of root observed.
- Thinning of cortical plate
- egg shell crackling.

5

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Manassery, Mukkam

ORAL AND

MAXILLOFACIAL

SURGERY.

SANAH BASHEER.
Roll No : 37.
Part II Regular
2019 Batch.

①

odontogenic tumor:

Based on origin:

1) odontogenic tumor- epithelial origin.

- Ameloblastoma
  - (i) unicystic ameloblastoma
  - (ii) malignant ameloblastoma
- calcifying epithelial odontogenic tumor
- adenomatoid odontogenic tumor

2) odontogenic tumor- ecto mesenchymal origin
- odontogenic fibroma
- odontogenic myxoma

3) odontogenic tumor
- mixed origin

- complex odontoma
- compound odontoma
- Ameloblastic fibroma

18 ½
70

Ameloblastoma

Acc to Robinson: Ameloblastoma is defined as unicentric, non function, intermittent in growth, Anatomically benign clinically persistent odontogenic tumor.

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Roll No : 39
Part II Regular
2019 Batch

21/70

1] Trigeminal neuralgia :

- It is unilateral, paralysis of Trigeminal ~~neuralg~~ nerve
- It is also, called Tic Douloreux,
- It is caused when any injury happen to trigeminal nerve
- Trigger when stimulus on Trigger zone.
- Trigger zone is present around mouth.
- This zone is trigger by - wind, cold, heat etc

- types of Trigeminal neuralgia :

  pre trigeminal neuralgia, trigeminal neuralgia, post trigeminal neuralgia.

- clinical features

~~Pr~~ trigeminal neuralgia:

- present of sharp, shooting, lancinating pain: which is like electric shock
- patient have difficulty in speaking.
- Severe pain

P.T.O.

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Hari
Roll no :17
part II

19/70

gerous Cyst

s an odontogenic cyst

formed between reduced enamel epithelium and

enamel Organ and are present around an Impacted

tooth

Giving appearance of Cyst within a Cyst

~~Etiolo~~

Clinical Features

Age - 30-50 Years.
Sex - Male > Female
Site - mandibular 3rd Molars > Max Canine > Mandibular 3rd Molars

clinical Presentation

- It Initially asymptomatic
- ~~Painless~~ Seen around Impacted teeth
- painless
- ~~[illegible]~~ Slowly progressive, painless hard mass
- Expansion of Cortical bone
- Egg crack sound
- ~~Displa~~ displacement of Adjacent tooth.
- It Gives cyst within a cyst appearance

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Department of Oral & Maxillofacial Surgery

2nd Internal Examination

Hana
Roll no:17
part II

classification of Odontogenic Tumors.

25½
70

① Benign

Epithelial Origin
- Ameloblastoma
- AOT
- COT

Mixed Origin
- Ameloblastic fibroma
- complex odontoma

Ectomesenchymal Origin
- Odontogenic fibroma

② Malignant
- Odontogenic carcinoma
- Odontogenic Sarcoma
- Odontogenic Carcinosarcoma.

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Ameloblastoma

- It is the most commonly seen tumour
- ~~Defn~~ Ameloblastoma is a unicentric, nonfunctional, intermittent in growth, anatomically benign & clinically persistent

Model Examination - 2024

Hana
part II
Roll no: 17

~~27~~ 30
70

Local Anaesthesia :-

It is the reversible loss of Consciousness in a circumscribed area by the ~~[illegible]~~ depression of nerve excitation and Inhibition of nerve conduction of peripheral Nerves.

Components

Local Anaesthetic Lignocain
Vasopressor : Adrenaline
Preservative :- Methylparaben
Fungicide :- Thymol
Maintain PH :- Sodium hydroxide
Maintain hypotonicity :- Sodium chloride
Diluting Agent :- Distilled water.

5

Complications :-

1) Systemic Complications
2) local Complication :-

~~[illegible]~~

Systemic Complication

- Allergy
- Dosage related Complication

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DEPARTMENT OF ORAL MEDICINE AND RADIOLOGY

DETAILS OF SPECIAL PROGRAMS FOR SLOW PERFORMERS

Continuous Monitoring and Individual Attention by Mentors: Each student benefits from individualized support provided by dedicated mentors who closely track their academic progress, pinpoint areas needing improvement, and offer guidance and encouragement to foster their growth.

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Encouraging Reading Books with Simple Language: To enhance comprehension, students are encouraged to explore supplementary resources or simplified textbooks that break down complex topics into more accessible language.

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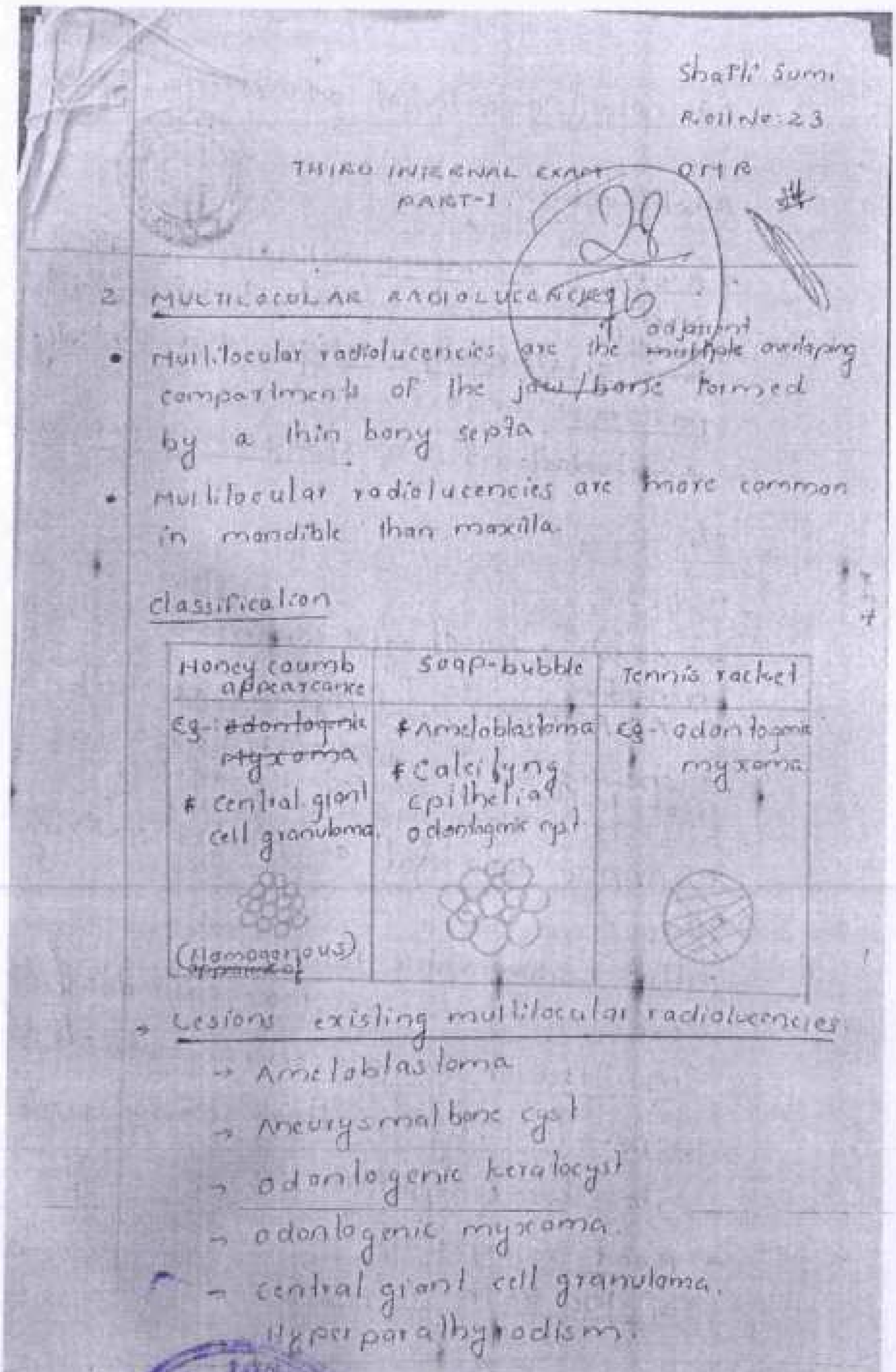
Rapid Revision and Revision Tests Before University Examinations: Special revision sessions are arranged before exams to review the syllabus, with an emphasis on key topics. Additionally, revision tests are conducted under exam-like conditions to help students practice time management and build confidence.



Shathi Sumi
Roll No: 23

THIRD INTERNAL EXAM OMR
PART-1

28

2 MULTILOCULAR RADIOLUCENCIES

- Multilocular radiolucencies are the ~~multiple~~ adjacent overlaping compartments of the jaw/bone formed by a thin bony septa
- Multilocular radiolucencies are more common in mandible than maxilla.

Classification

Honey coumb appearance	Soap-bubble	Tennis racket
Eg- ~~odontogenic myxoma~~ * central giant cell granuloma. (Homogenous)	* Ameloblastoma * Calcifying epithelial odontogenic cyst	Eg- odontogenic myxoma

- Lesions existing multilocular radiolucencies
  - → Ameloblastoma
  - → Aneurysmal bone cyst
  - → odontogenic keratocyst
  - → odontogenic myxoma.
  - → central giant cell granuloma.
  - Hyperparathyrodism.

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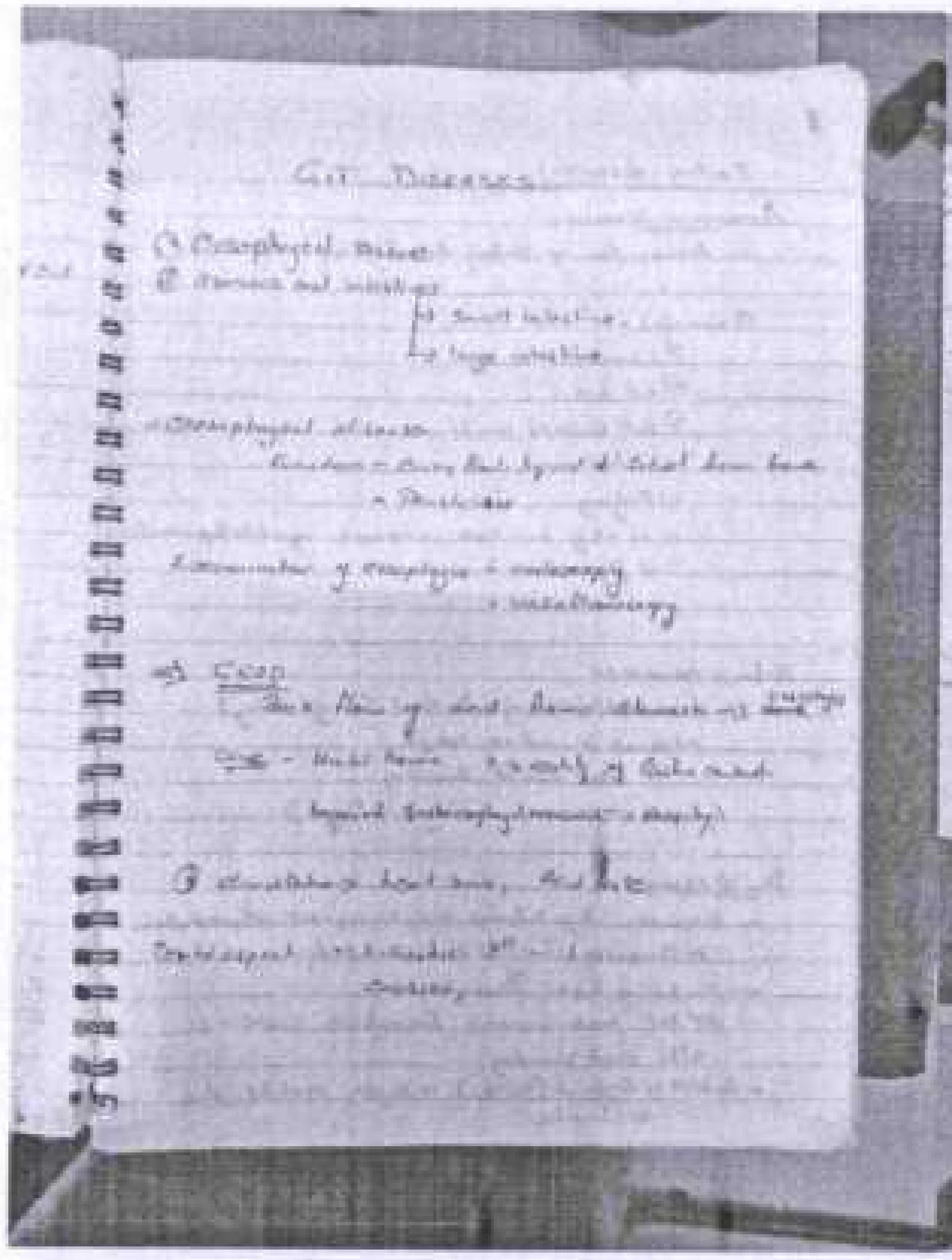
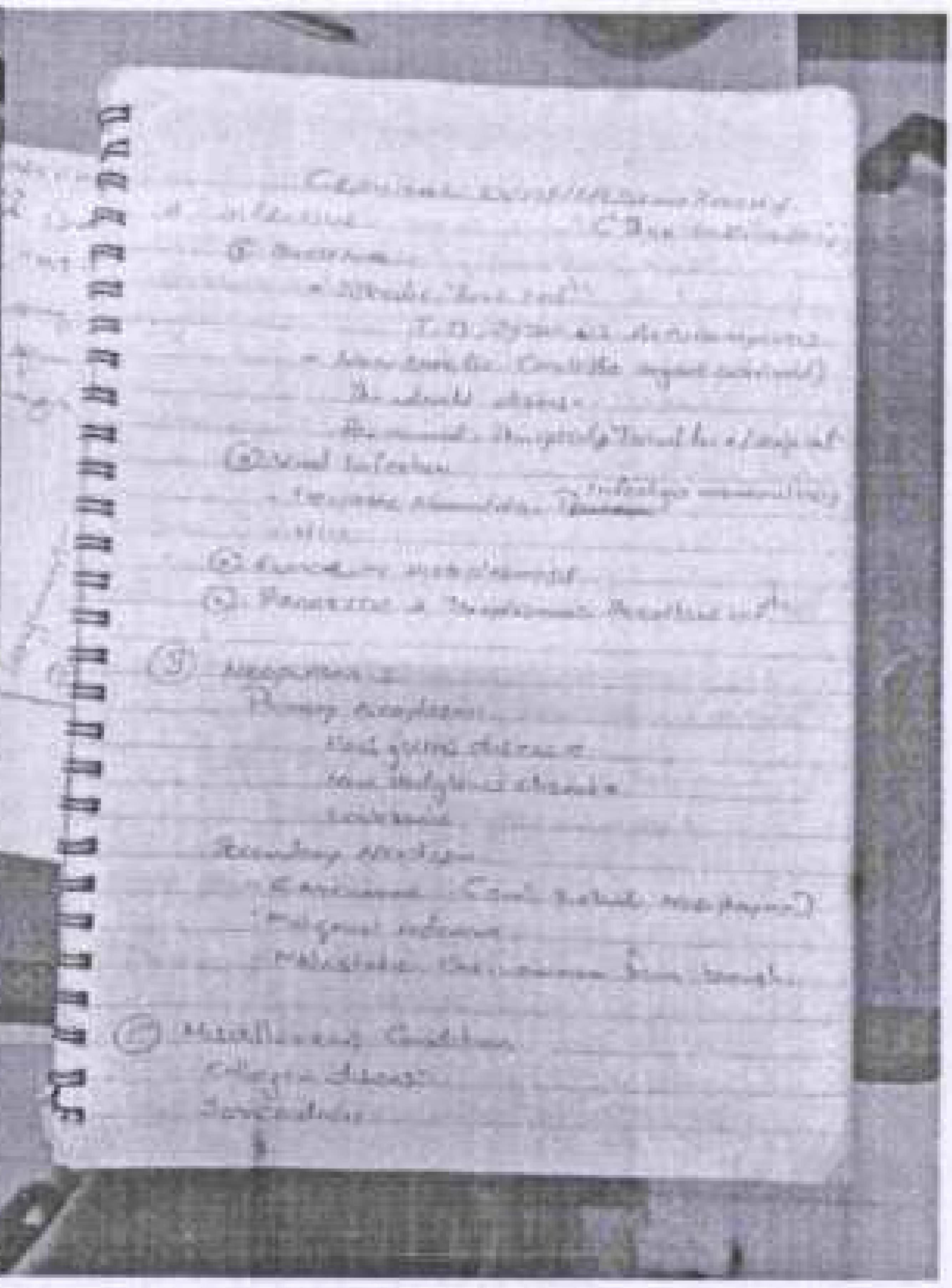
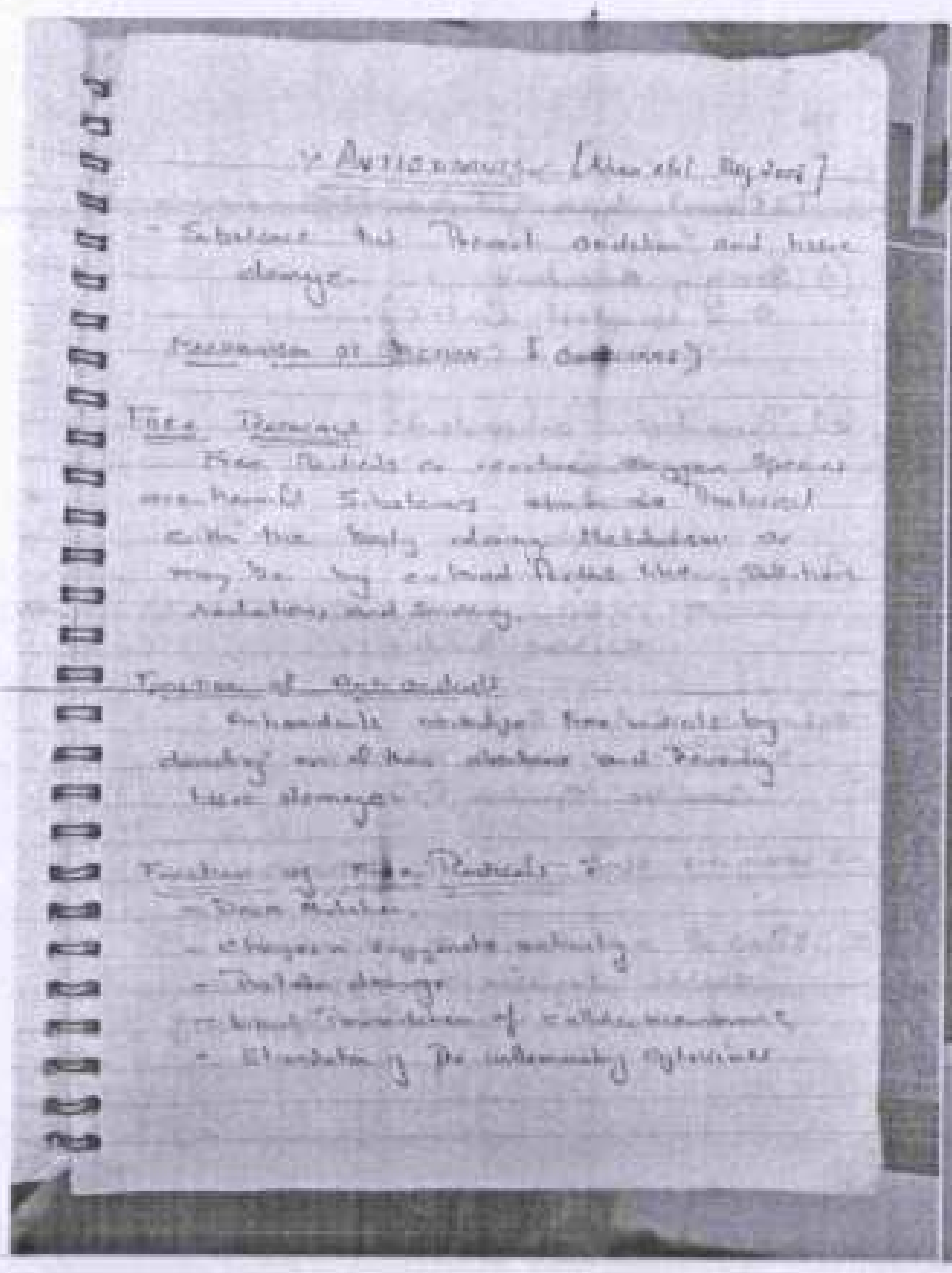
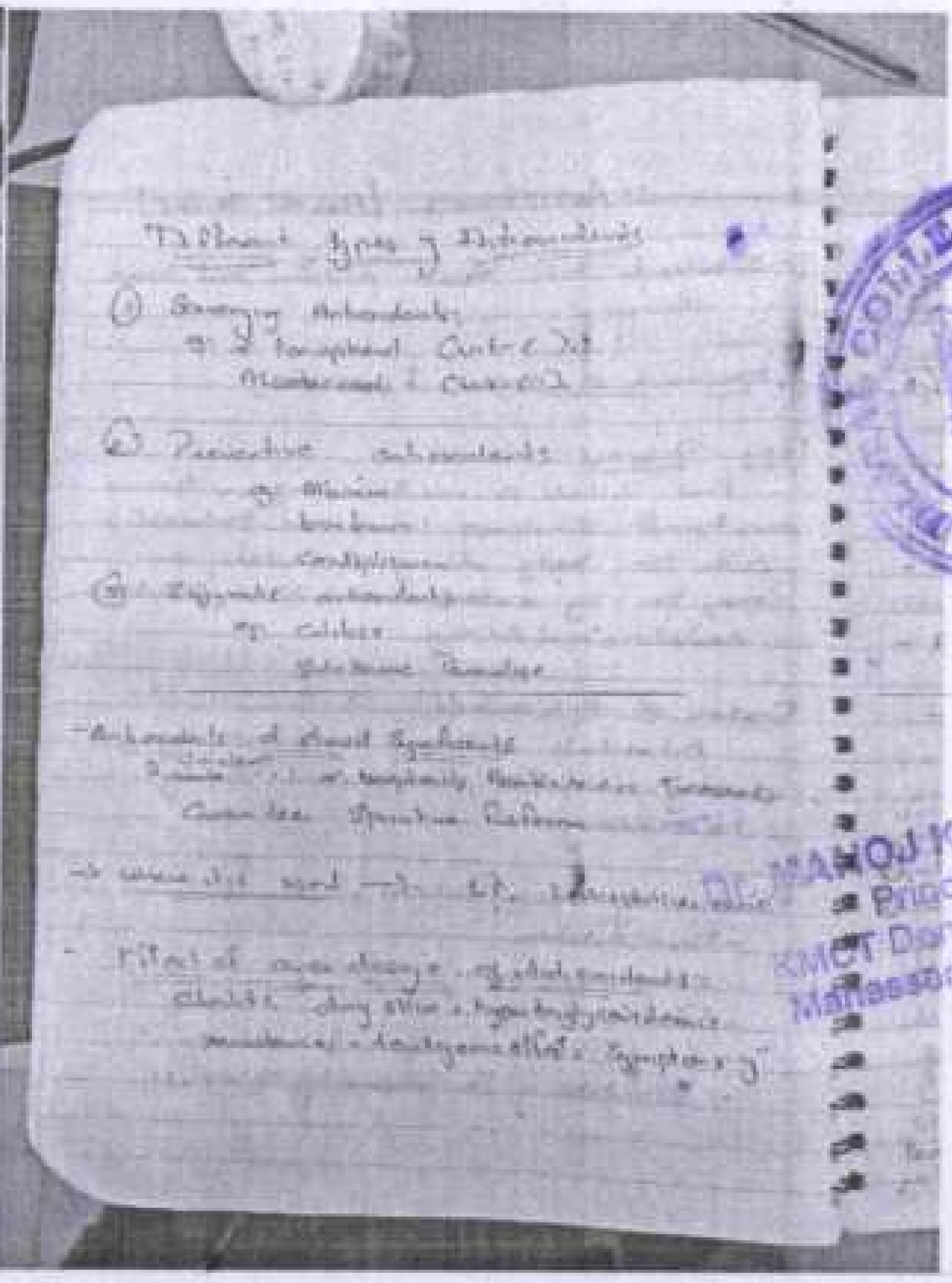
Provision of Special Notes: Specialized study materials, such as simplified notes and concise summaries, are provided to students needing additional support, helping them grasp and retain essential concepts more effectively.









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Customized Learning Plans: Personalized learning plans are developed to accommodate individual learning styles, paces, and needs, ensuring a tailored and student-centric educational experience.

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DEPARTMENT OF ORAL MEDICINE AND RADIOLOGY

Lesson Plan

Faculty: Dr. Prejith Sampath **Batch:** Third Year Regular

Date: 02-11-2022

Topic	Dental considerations & Oral Manifestations in Patients with Liver Disease	
Session Number	1 out of 1	
Objectives	**Teaching Method**	**Duration**
Introduction & Functions	Didactic	5 minutes
Fate of Bilirubin	Powerpoint & Didactic	5 minutes
Liver Diseases • Dental considerations • Causes of liver damage • General features • Hepatitis B • Liver Cirrhosis	Powerpoint	15 minutes
Oral Manifestations	Powerpoint	5 minutes
Lab investigations	Powerpoint	5 minutes
Contraindicated drugs	Powerpoint	5 minutes
Evaluation		5 minutes
Study Reference	Scully's Medical Problems in Dentistry – 7th Edition	
Assessment Questions Google forms (MCQ)	1. All of these are functions of the liver except, a. Production of bile b. Storage of glycogen c. Removal of nitrogenous waste d. Production of clotting factors 2. Which of these is a false statement? Conjugated bilirubin, a. is also known as direct bilirubin b. is elevated in the blood due to biliary obstruction c. is responsible for colouring the faeces d. is not water soluble 3. A dentist needs to be aware that liver disease can cause all the following except, a. Clotting disorders b. Reduction in immunity c. Lentigo d. Alteration in drug metabolism 4. Hepatitis B virus recovery and immunity is indicated by presence of a. Core antibody and surface antibody b. Core antibody and core antigen c. Core antigen and Surface antigen d. Core antibody and Surface antigen 5. Most sensitive marker of liver disease is a. Total Bilirubin b. Alkaline phosphatase c. Alanine aminotransferase d. Aspartate aminotransferase	

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Special Classes with Subject Experts: Students who need extra support participate in supplementary classes led by subject experts. These sessions are designed to clarify key concepts, resolve doubts, and offer additional guidance on difficult topics.

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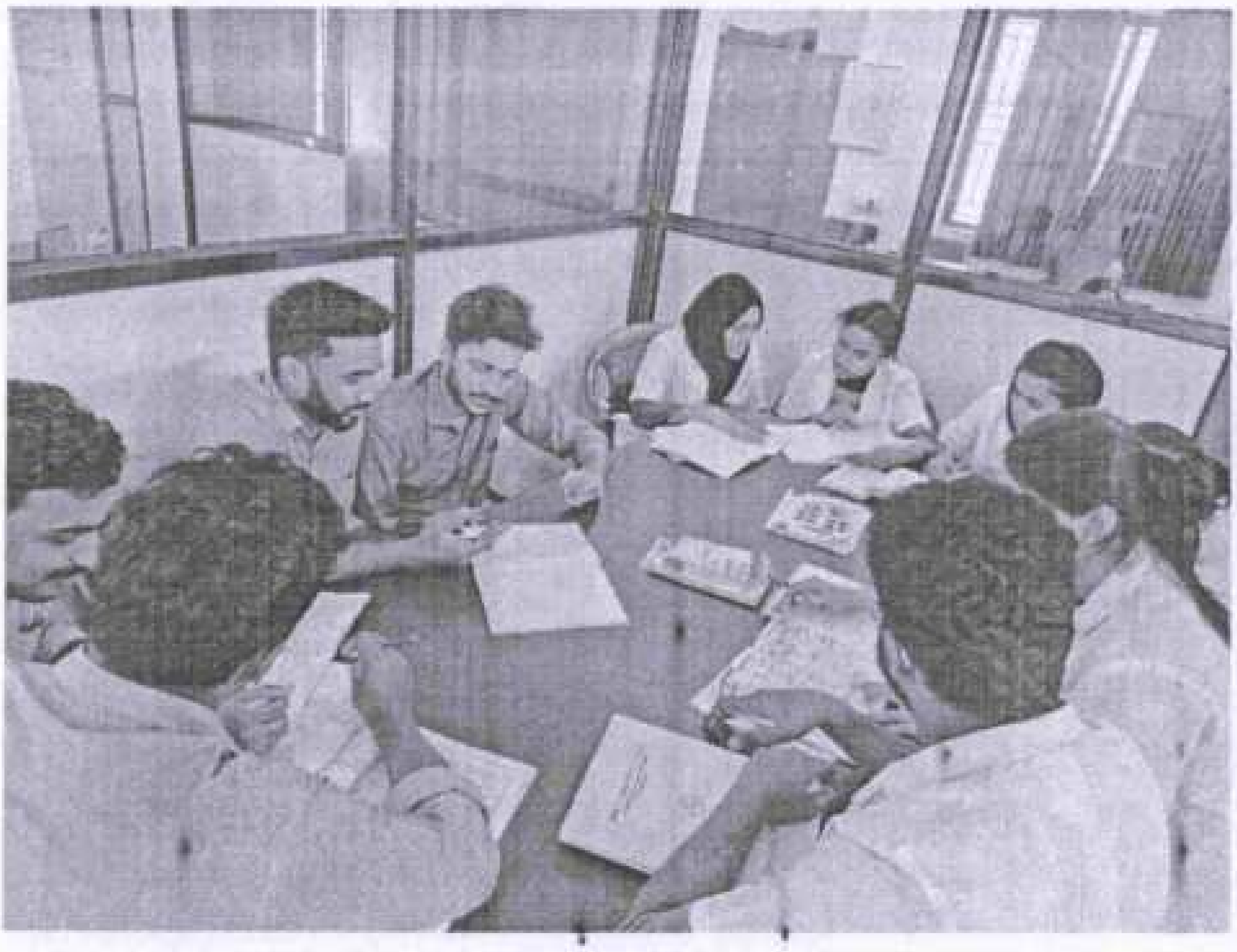
Encouragement of Collaborative Study with Advanced Learners: Collaborative study groups are established, pairing students who need additional support with high-performing peers. This approach creates a nurturing learning environment where advanced learners mentor their peers, helping them grasp complex concepts.



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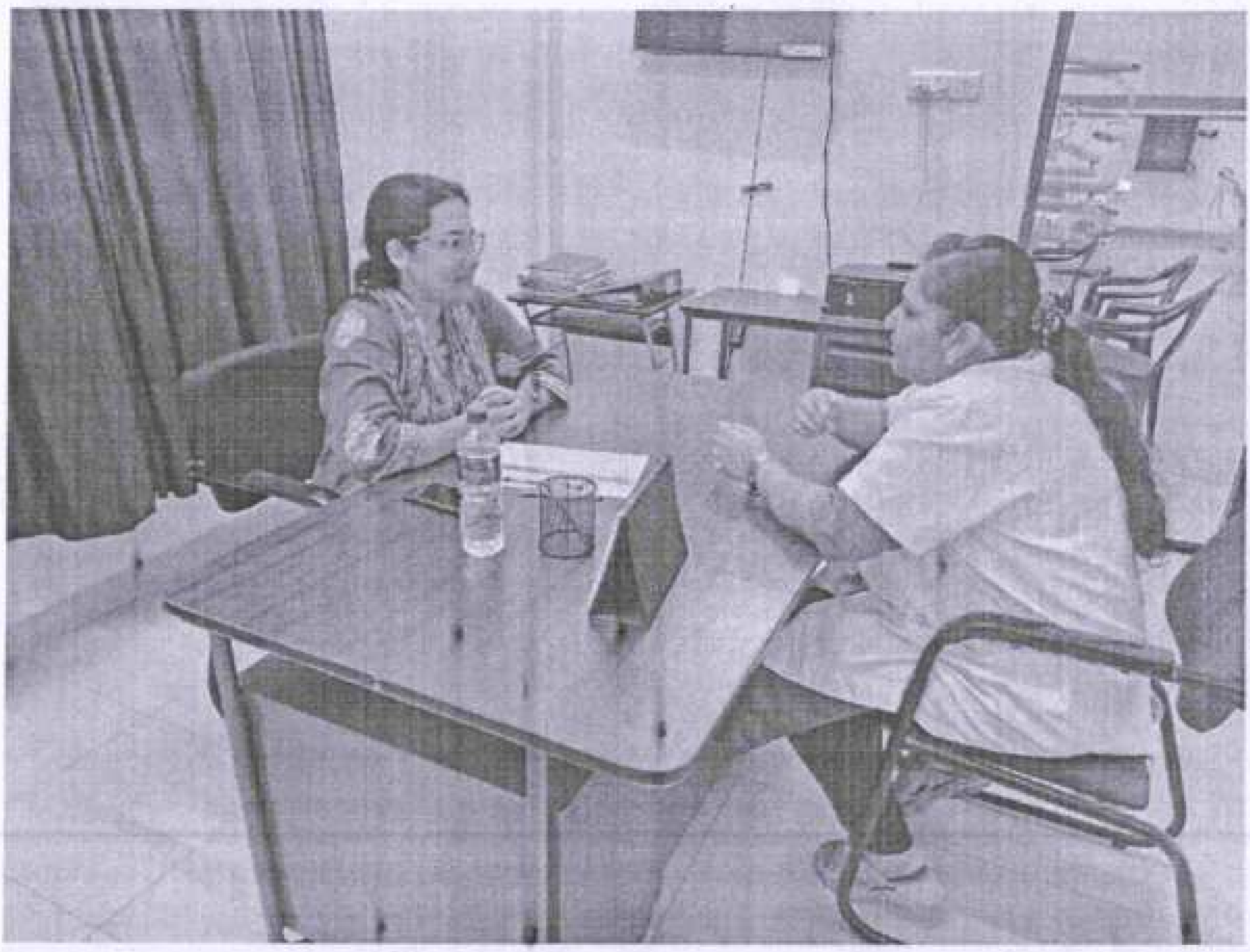
Counseling for Students and Parents with Psychologists: Professional counselors, as part of the Happiness Department, hold regular sessions for students and parents to address academic challenges, manage study-related stress, and provide guidance on effective study techniques. These sessions aim to enhance both academic performance and mental well-being.



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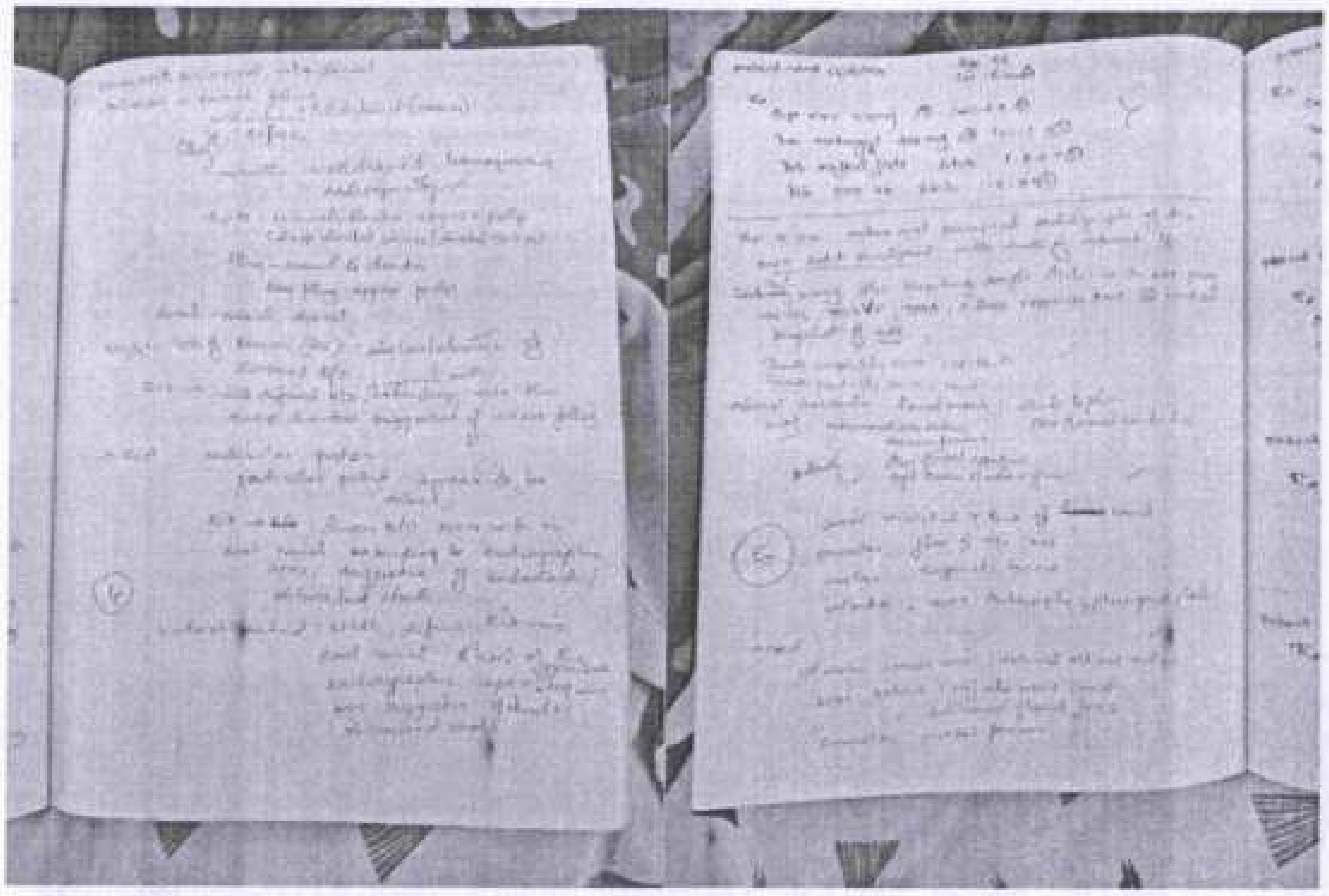
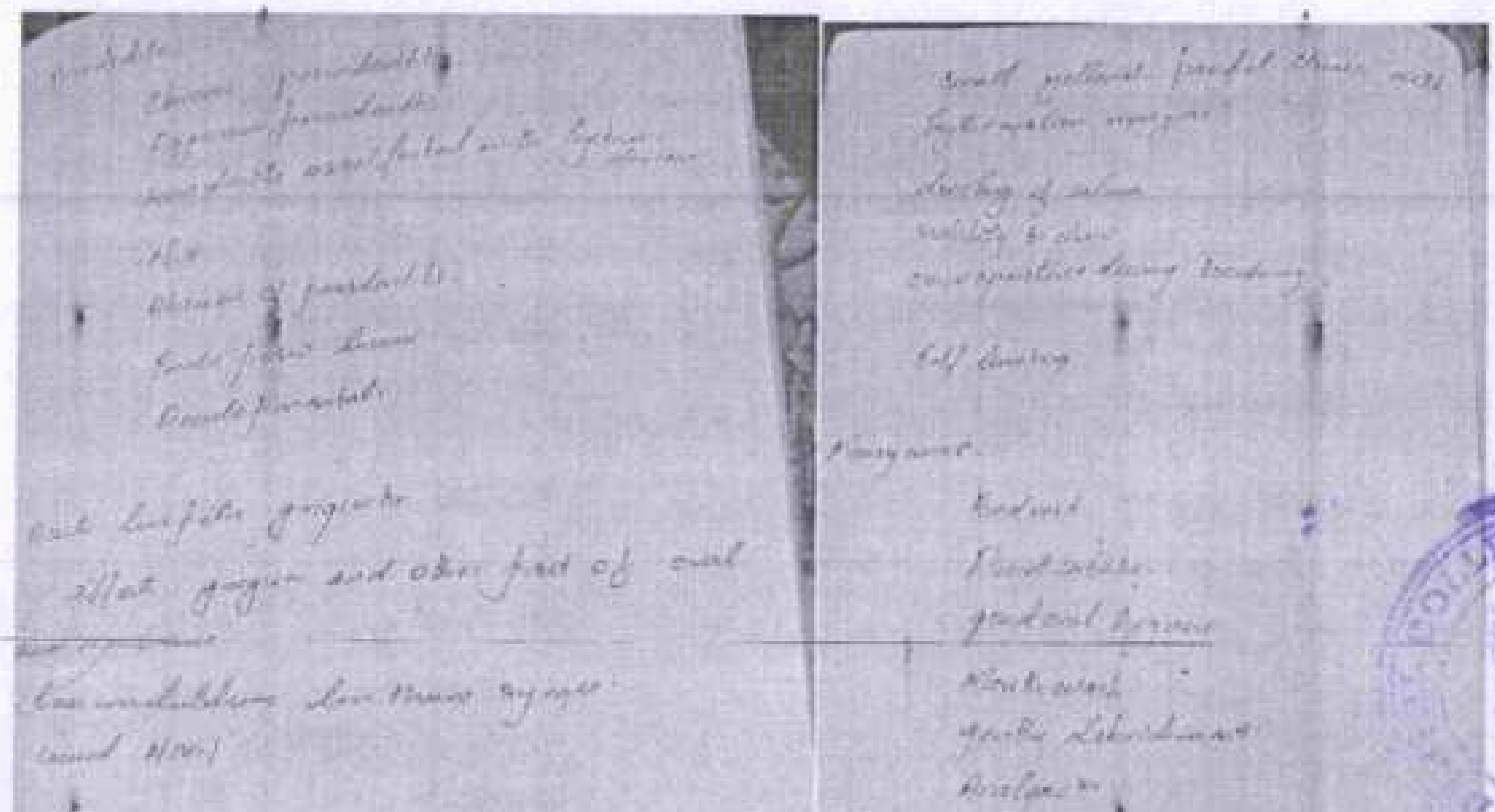
Periodical Assessments with Class Tests and Evaluation: Frequent class tests and assessments are conducted to monitor progress, pinpoint areas for improvement, and deliver timely feedback. This process helps students recognize their strengths and address their weaknesses effectively.





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DEPARTMENT OF ORAL MEDICINE AND RADIOLOGY

REPORT ON TEST AND RETEST CONDUCTED FOR THE SLOW LEANERS

The Test and Retest Program was designed to assist students who require extra academic support, often referred to as "slow learners." This initiative aims to identify students struggling with course material, deliver targeted interventions, and enhance their academic performance through a structured retesting process.

Objectives of the Test and Retest Program

The key objectives of the program are as follows:

1. **Identify Challenges:** To pinpoint students who face difficulties in meeting academic expectations.
2. **Provide Remedial Support:** To offer focused assistance for improving their understanding of core concepts.
3. **Track Progress:** To evaluate improvement through a systematic retesting approach.
4. **Boost Confidence:** To reduce academic anxiety and foster self-assurance by giving students a second chance to succeed

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2/10/2023
Monday

OMR First Internal Exam

Amalika A M
Roll no - 5

①

22 ½
70

6) Trigeminal Neuralgia

Also called as Trifacial neuralgia, Fothergill disease, Tic douloureux

Trigeminal neuralgia is an archetype of orofacial neuralgia affecting second & third divisions of trigeminal nerve.

Etiology

Atherosclerosis of superior cerebellar artery pressing and grooving roots of trigeminal nerve.

Clinical features

↳ most common cranial neuralgia
↳ Age: Occurs at any age, most commonly above the age of 50
↳ Females are more commonly affected than males in the ratio
F:M = 3:2
↳ Acute stabbing, lancinating or throbbing pain
↳ Pain is felt when the patient touches the trigger zones which are at vermilion border of lip, alae of nose, cheeks and around eyes.
↳ Pain is persists for few seconds to minutes.
↳ It is called tic douloureux as the ~~sp~~ patient suffers from spasmodic contractions of facial muscles.

Need to write investigation and medical management

↳ Pain Not associated with dental causes
↳ Not relieved by analgesics
↳ Unilateral; right side more commonly affected than left in the ratio (1.7:1)
↳ Patient learns to avoid touching skin over trigger zones in order to avoid pain, therefore the area remains unwashed, unbrushed & unshaven. Exposure to strong breeze, smiling and eating also causes pain.

①

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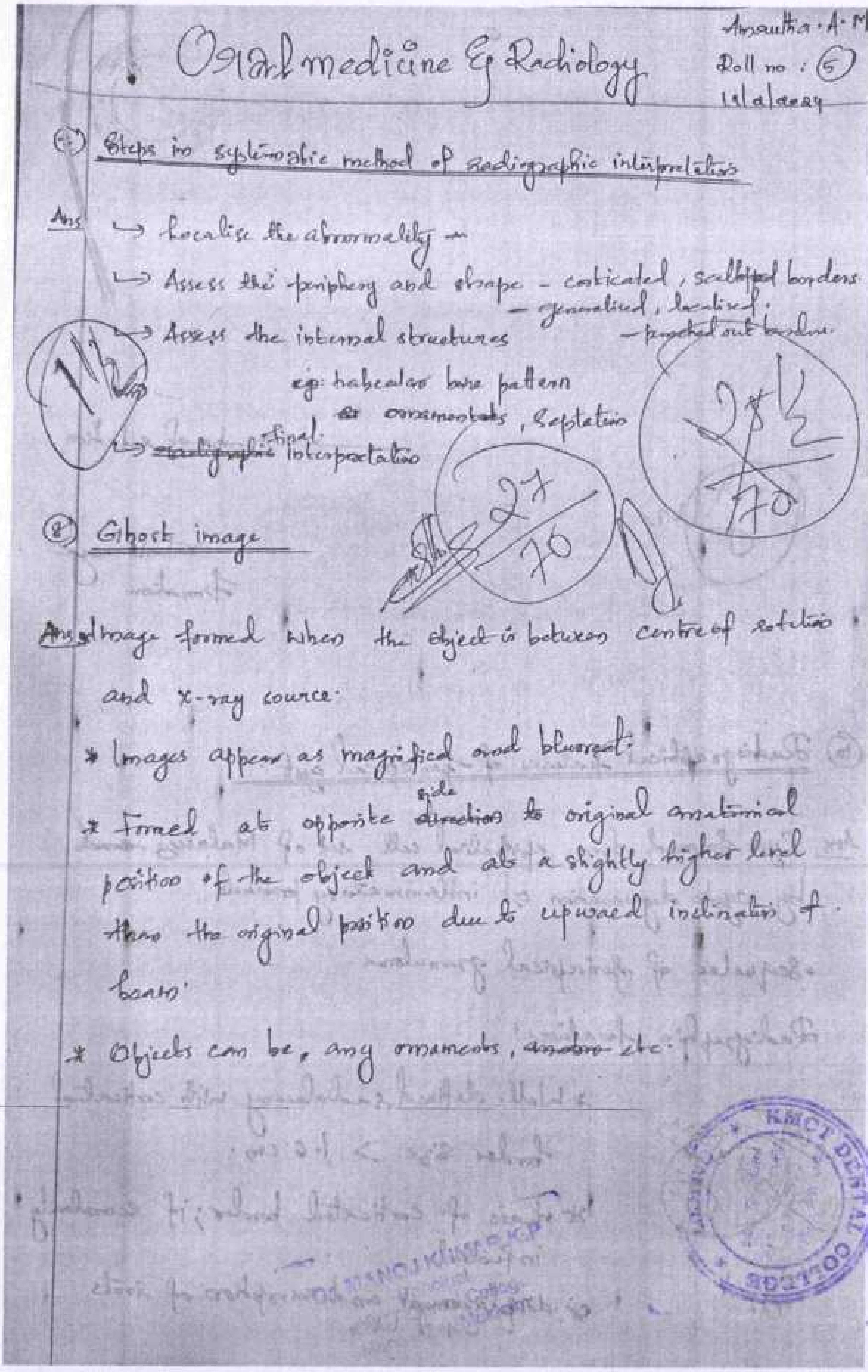


Oral medicine & Radiology

Amrutha . A . M
Roll no : ⑤
14/2/2024

(7) **Steps in systematic method of radiographic interpretation**

Ans
↳ Localise the abnormality
↳ Assess the periphery and shape – corticated, scalloped borders
– generalised, localised.
– punched out border.
↳ Assess the internal structures
eg: trabecular bone pattern
~~ex~~ ornamentals, septation
↳ ~~radiographic~~ final interpretation

1½

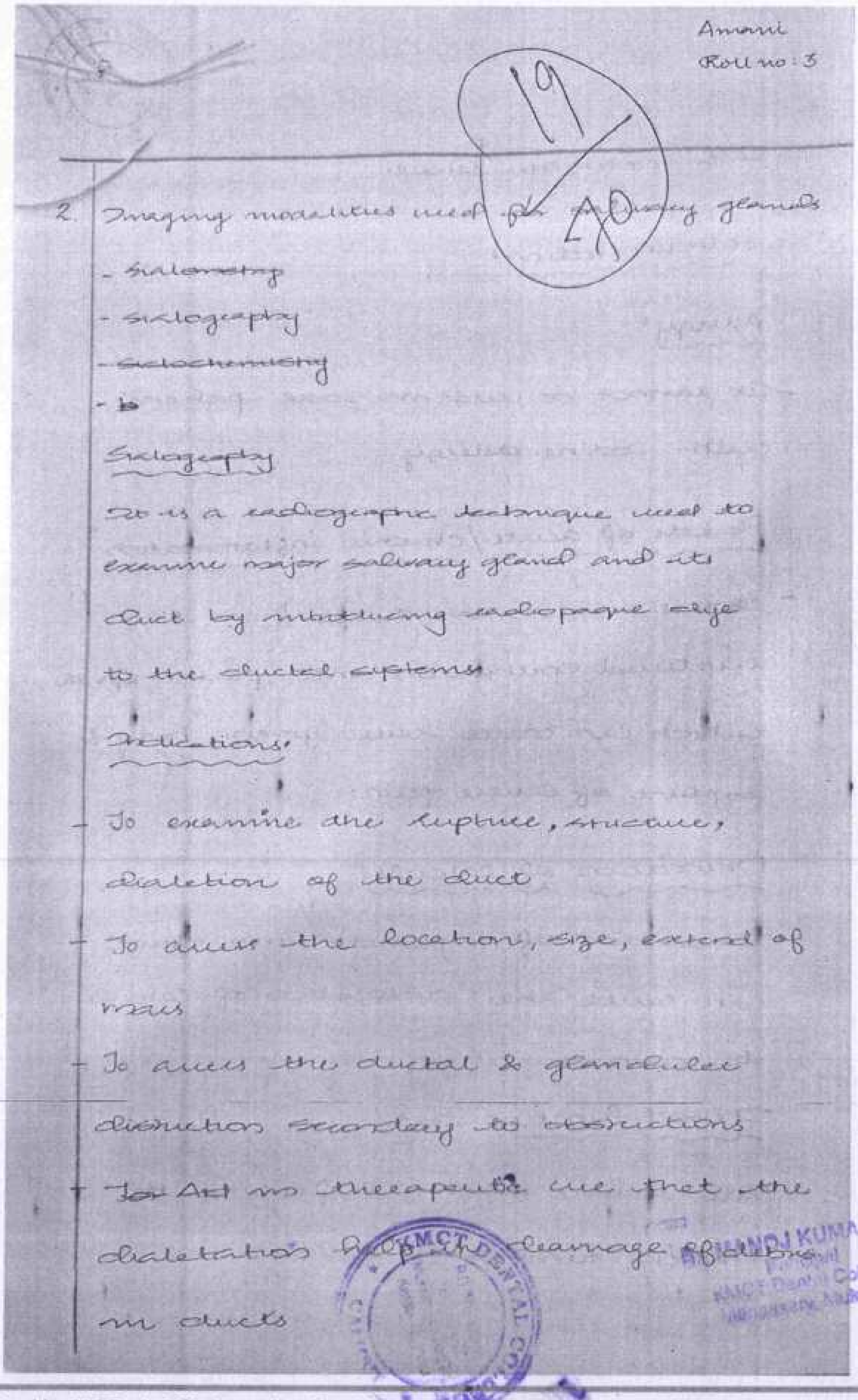
⑧ **Ghost image**

27/70

~~28½~~
70

Ans: Image formed when the object is between centre of rotation and x-ray source.

* Images appear as magnified and blurred.
* Formed at opposite ~~direction~~ side to original anatomical position of the object and at a slightly higher level than the original position due to upward inclination of beam.
* Objects can be, any ornaments, ~~anatomic~~ etc.



Amani
Roll no: 3

19
20

2. Imaging modalities used for salivary glands

- Sialometry
- Sialography
- Sialochemistry
- ~~lo~~

Sialography

It is a radiographic technique used to examine major salivary gland and its duct by introducing radiopaque dye to the ductal systems

Indications:

- To examine the rupture, stricture, dilation of the duct
- To assess the location, size, extend of mass
- To assess the ductal & glandular destruction secondary to obstructions
- ~~For~~ Act as therapeutic use that the dilatation help of cleavage of debris in ducts

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Amani
Roll No 3

22/20

22

ORAL MEDICINE AND RADIOLOGY

3. → AIDS is a infectious disease caused retrovirus- human immunodeficiency virus characterised by immunosuppression with ~~[illegible]~~ infections

Classification of oral manifestations of HIV

Type I - Infections/Lesions strongly associated with HIV

- Candidiasis
  - pseudomembranous
  - erythematous
- Hairy leukoplakia
- Non hodgkin lymphoma
- Necrotizing ulcerative gingivitis
- Necrotizing ulcerative periodontitis
- Kaposi sarcoma
- Linear gingival erythema

Type II - Infections that are less associated with HIV

- Bacterial : Mycobacterium avium
- Malignant melanoma (Hyp~~[illegible]~~)

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FIRST INTERNAL EXAMINATION

ORAL MEDICINE AND RADIOLOGY

SREE GANESH S
Roll No: 25
Final Year Part-I

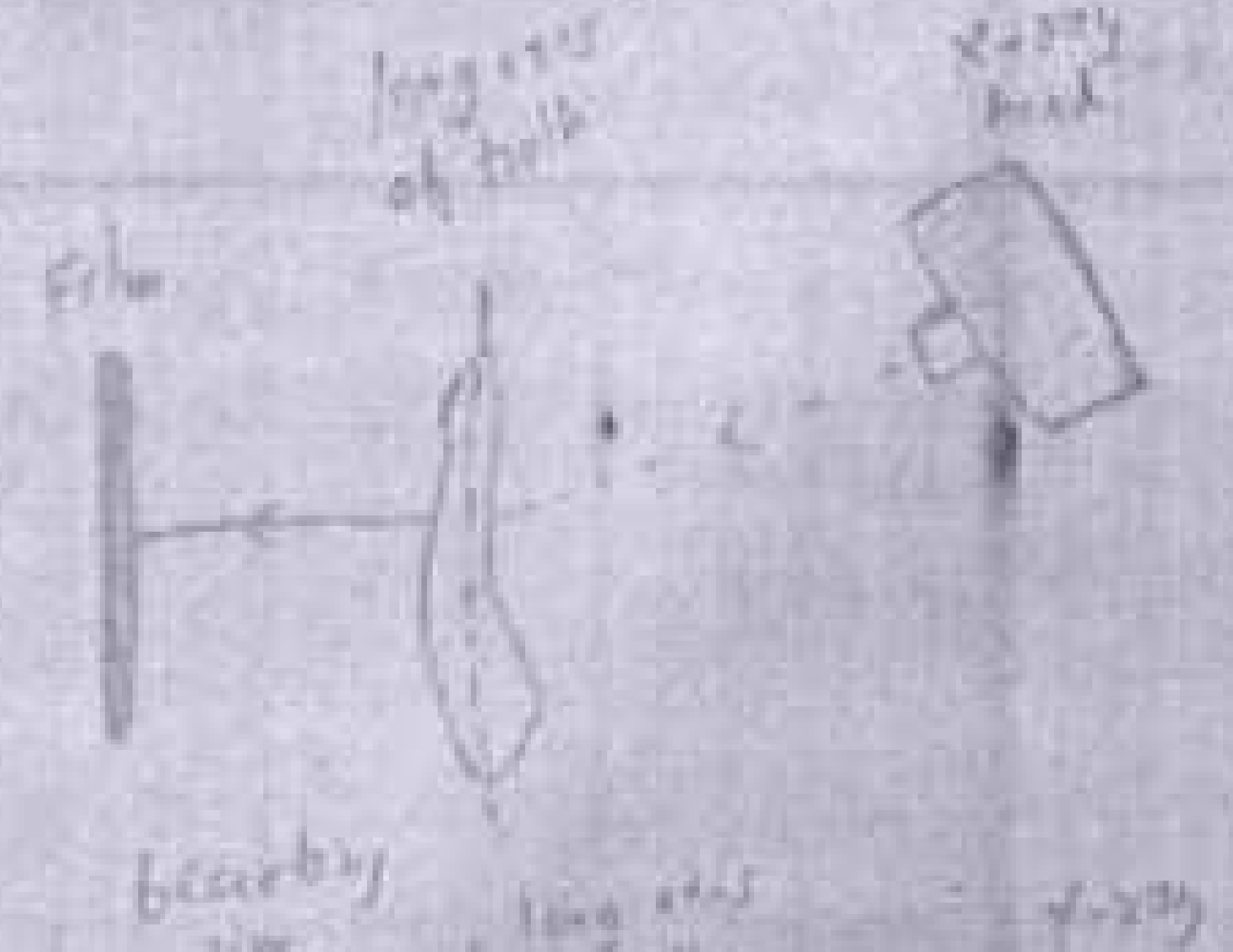
17½/70

2) The various types of intra oral radiographic techniques include ;

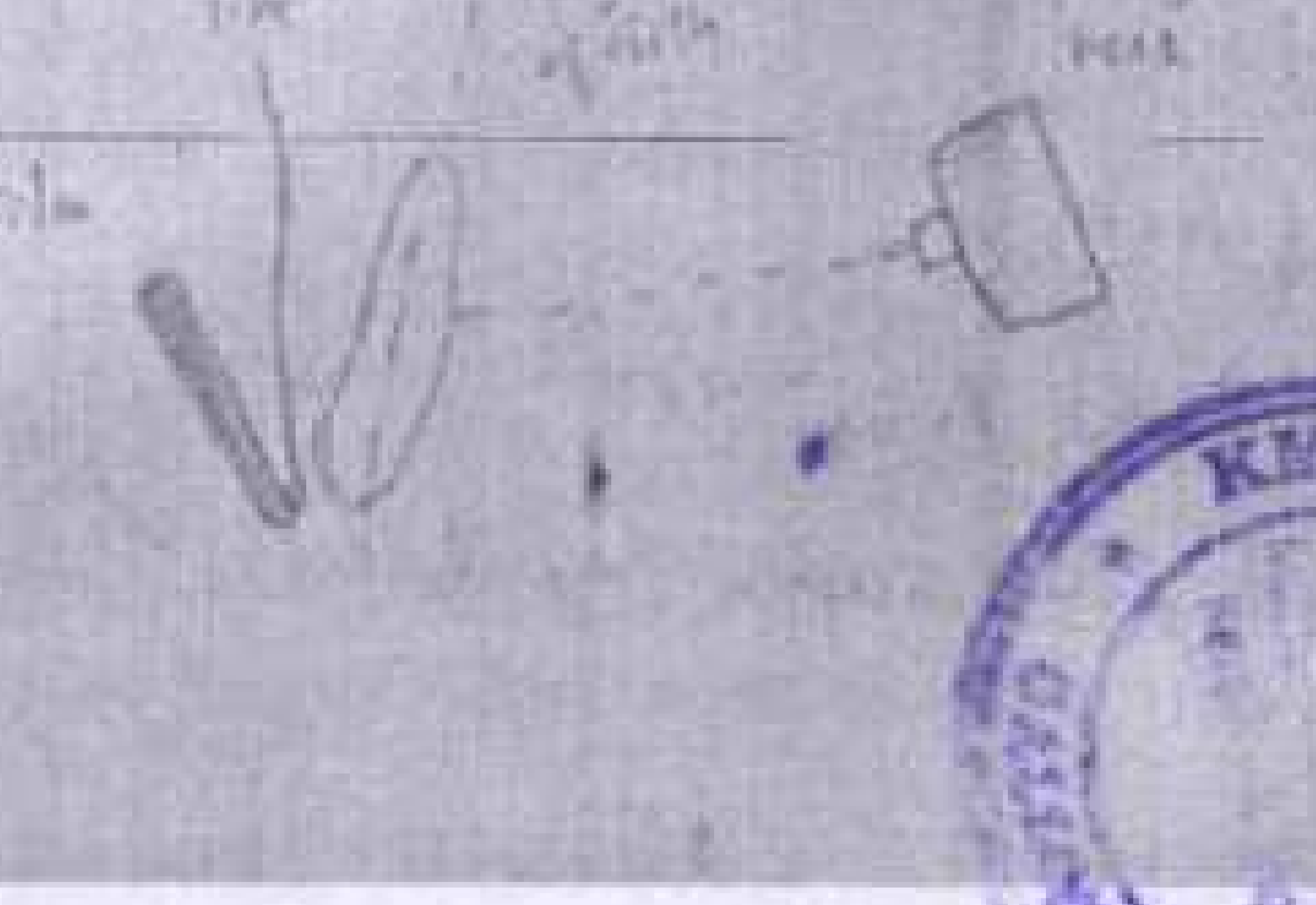
- Parallel angle technique
- Bisecting technique
- Bitewing
- Occlusal

- In parallel intra oral radiograph technique, the film and the object are kept parallel to each other and the x-ray radiation source is perpendicular to these both

- In Bisecting angle technique, the film and the object (tooth) are kept ~~as~~ close as to each other with the source of beam in bisecting the two



→ Parallel technique



→ Bisecting angle technique

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IInd Internal Examination

SREE GANESH S
25

ORAL MEDICINE AND RADIOLOGY

19/20

1) vesiculo bullous lesions;

-> Immunological;

- Pemphigus vulgaris
- Bullous pemphigoid
- Mucous membrane pemphigoid
- Erythema multiforme
- Epidermolysis bullosa aquisitic

-> Viral infections;

- Herpes simplex
- Chicken pox
- Herpes zoster

5

-> Hereditary disease

- Epidermolysis Bullosa

. The classification based on the clinical presention and aetiological factor

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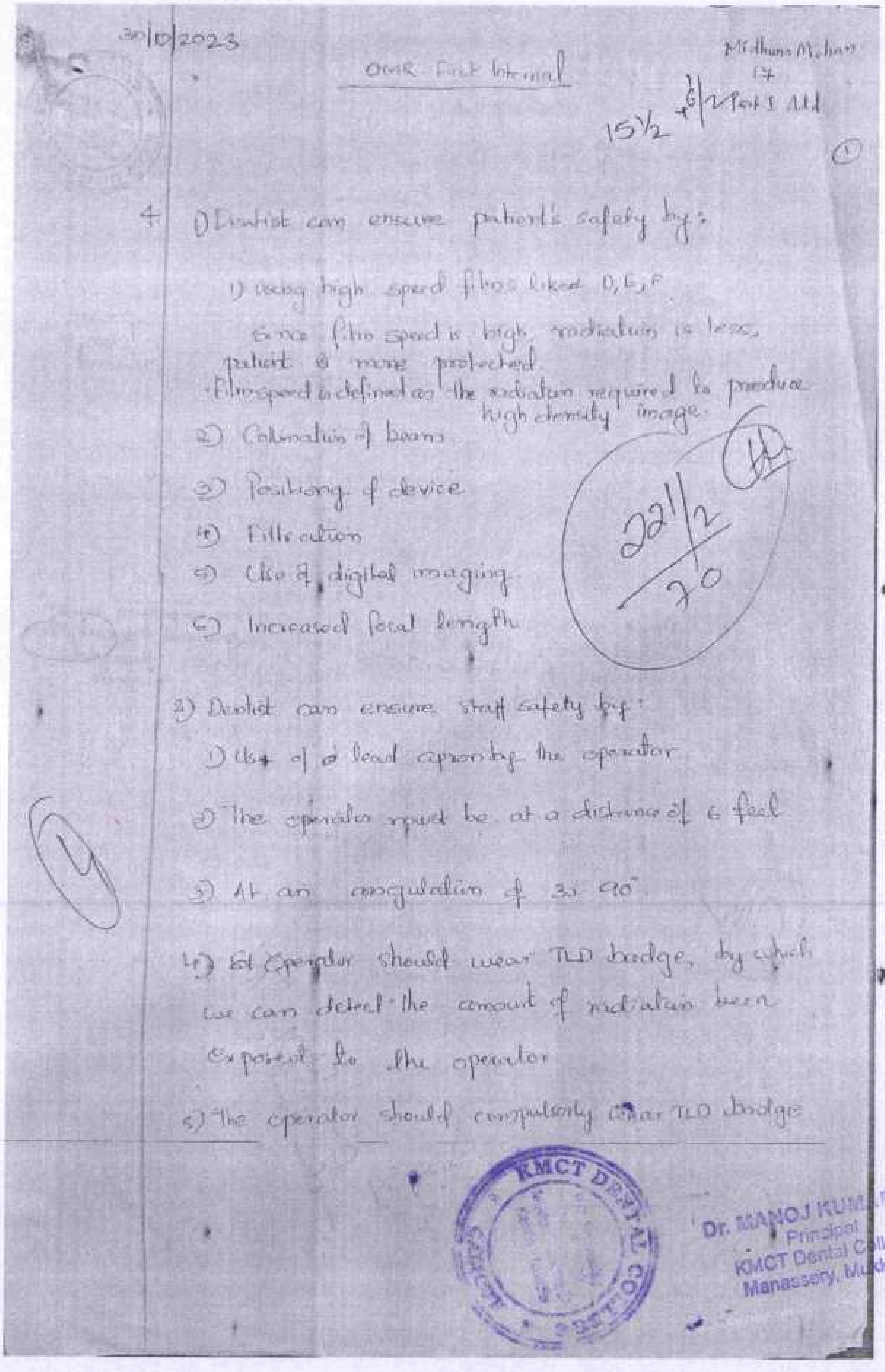

30/10/2023

OMR First Internal

Midhuna Mohan
17

15½ + 6/2 for I Add

①

4 1) Dentist can ensure patient's safety by:

1) using high speed films like D, E, F

Since film speed is high, radiation is less, patient is more protected.

- Film speed is defined as the radiation required to produce high density image.

2) Collimation of beam

3) Positioning of device

4) Filtration

5) Use of digital imaging

6) Increased focal length

22½/70

2) Dentist can ensure staff safety by:

1) Use of ~~a~~ lead apron by the operator

2) The operator must be at a distance of 6 feet

3) At an angulation of 35 90°

4) ~~St~~ Operator should wear TLD badge, by which we can detect the amount of radiation been exposed to the operator

5) The operator should compulsorily wear TLD badge

4

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OMR- IInd Internal

MIDHUNA MOHAN
Part I Add
17

①

35/70

7. 1) Localise the abnormality
    1) Anatomical landmark
    2) Location
    3) Unilateral or bilateral
    4) Single or multifocal.

2) Assess the perifory and shape
    1) Well defined
        1) Soft tissue capsule
        2) Corticated
        3) punched out
        4) Sclerotic
    2) ill defined
        1) Blending
        2) Invasive

    3) Shape
        1) Irregular
        2) Circular
        3) Scalloped

3

3) Analysing the internal structure
    1) Completely radiolucent
    2) Completely radiopaque
    3) Mixed

4) Analysing the lesion affecting surrounding structure
    1) Tooth, Lamina Dura, periodontal ligament space
    2) mental foramen and Alveolar bone
    3) Maxillary antrum
    4) density and trabecular pattern of surrounding Bone and structures.
    5) Persistent bone density.

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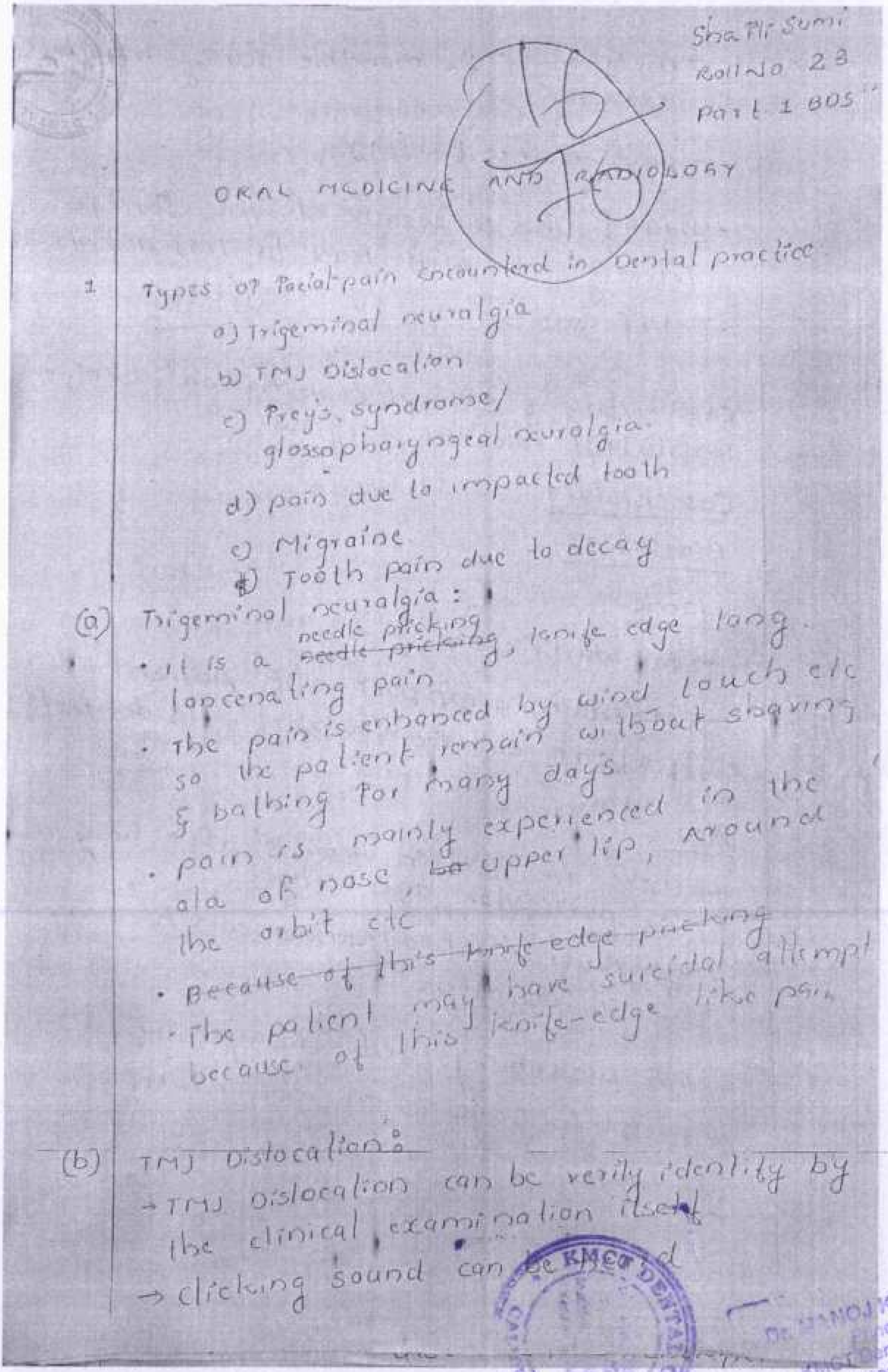

Shaplisumi
RollNo 23
Part 1 BDS

16/70

ORAL MEDICINE AND RADIOLOGY

1 Types of facial pain encounterd in Dental practice
  a) Trigeminal neuralgia
  b) TMJ Dislocation
  c) Frey's syndrome/
    glossopharyngeal neuralgia
  d) pain due to impacted tooth
  e) Migraine
  f) Tooth pain due to decay

(a) Trigeminal neuralgia :
- it is a ~~needle pricking~~ needle pricking, knife edge long lancenating pain
- The pain is enhanced by wind touch etc so the patient remain without shaving & bathing for many days
- pain is mainly experienced in the ala of nase, ~~be~~ upper lip, Around the orbit etc
- ~~Because of this knife edge packing~~
- The patient may have suicidal attempt because of this knife-edge like pain

(b) TMJ Dislocation :
→ TMJ Dislocation can be verily identity by the clinical examination itself
→ clicking sound can be heard

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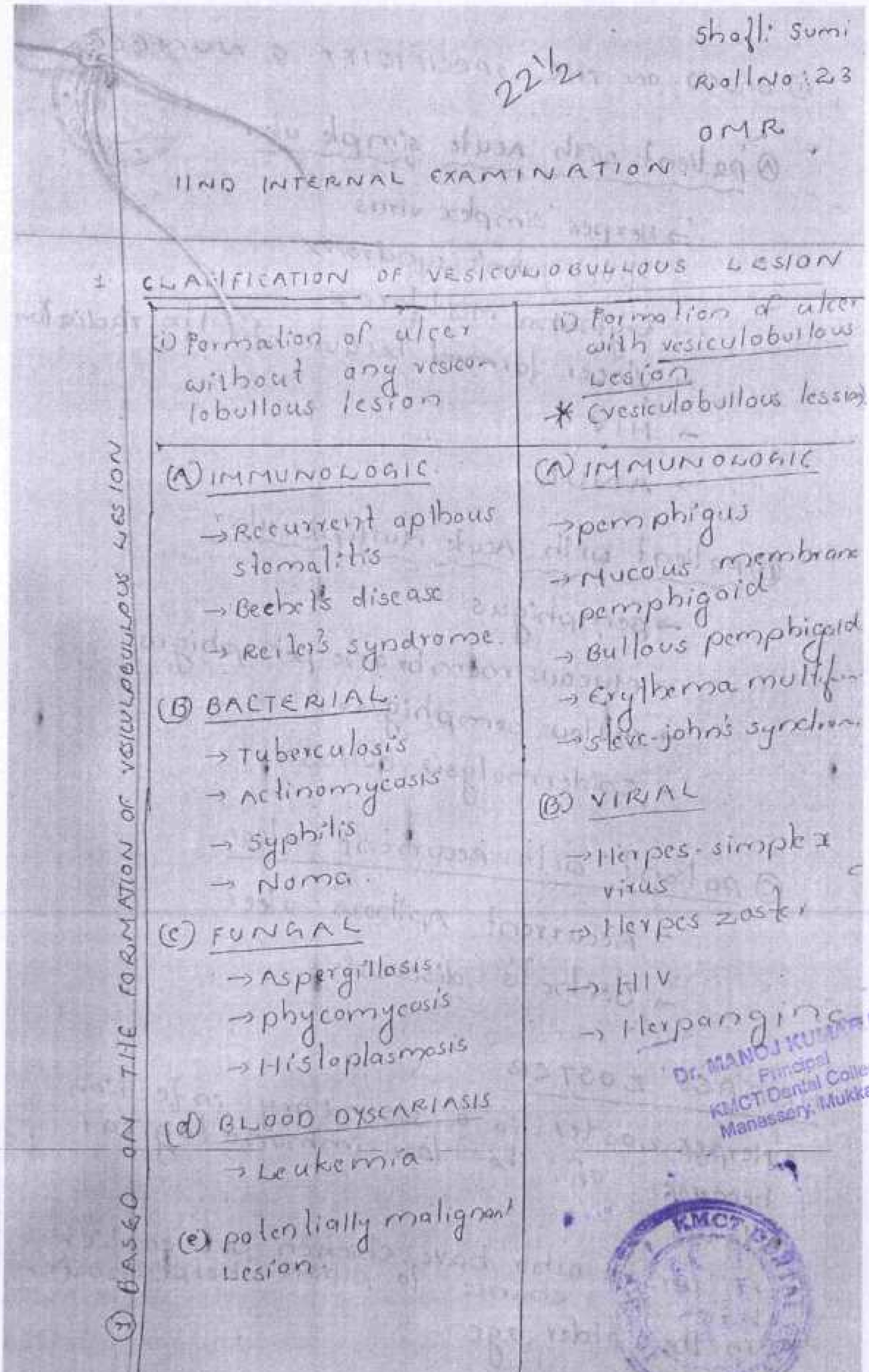

Shafli Sumi
Roll No: 23
OMR

22½

IInd INTERNAL EXAMINATION

1 CLASIFICATION OF VESICULOBULLOUS LESION

① BASED ON THE FORMATION OF VESICULOBULLOUS LESION

(i) Formation of ulcer without any vesiculobullous lesion	(ii) Formation of ulcer with vesiculobullous lesion * (vesiculobullous lesion)
(A) IMMUNOLOGIC → Recurrent apthous stomatitis → Bechet's disease → Reiter's syndrome.	(A) IMMUNOLOGIC → pemphigus → Mucous membrane pemphigoid → Bullous pemphigoid → Erytherna multif → Steve-john's syndrom
(B) BACTERIAL → Tuberculosis → Actinomycosis → Syphilis → Noma.	(B) VIRAL → Herpes simplex virus → Herpes zoster → HIV → Herpangina
(C) FUNGAL → Aspergillosis → phycomycosis → Histoplasmosis	
(d) BLOOD DYSCARIASIS → Leukemia	
(e) potentially malignant lesion	

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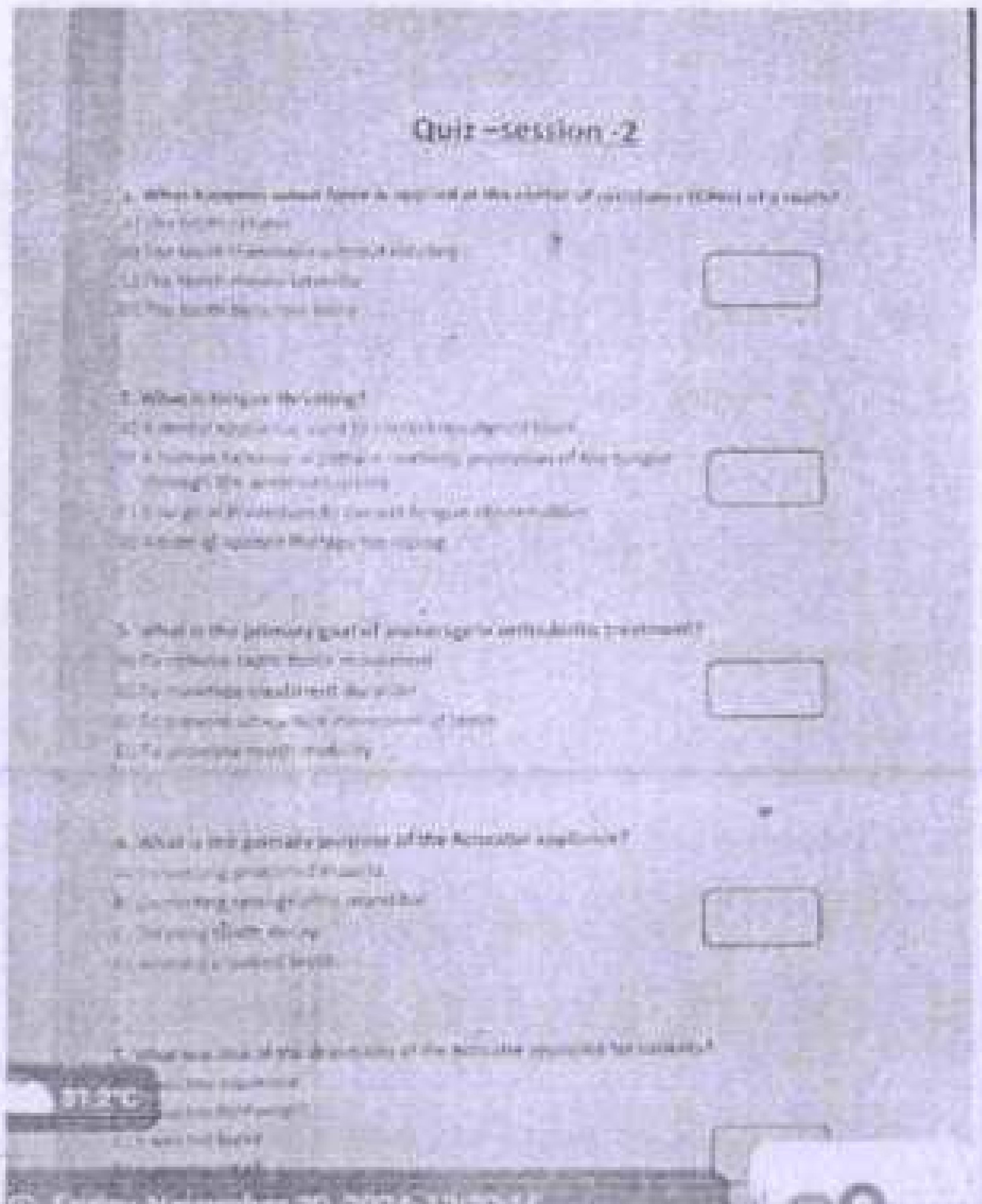
DEPARTMENT OF ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS

DETAILS OF SPECIAL PROGRAMS FOR SLOW PERFORMERS

Interactive Teaching Techniques

Quiz/MCQ based learning

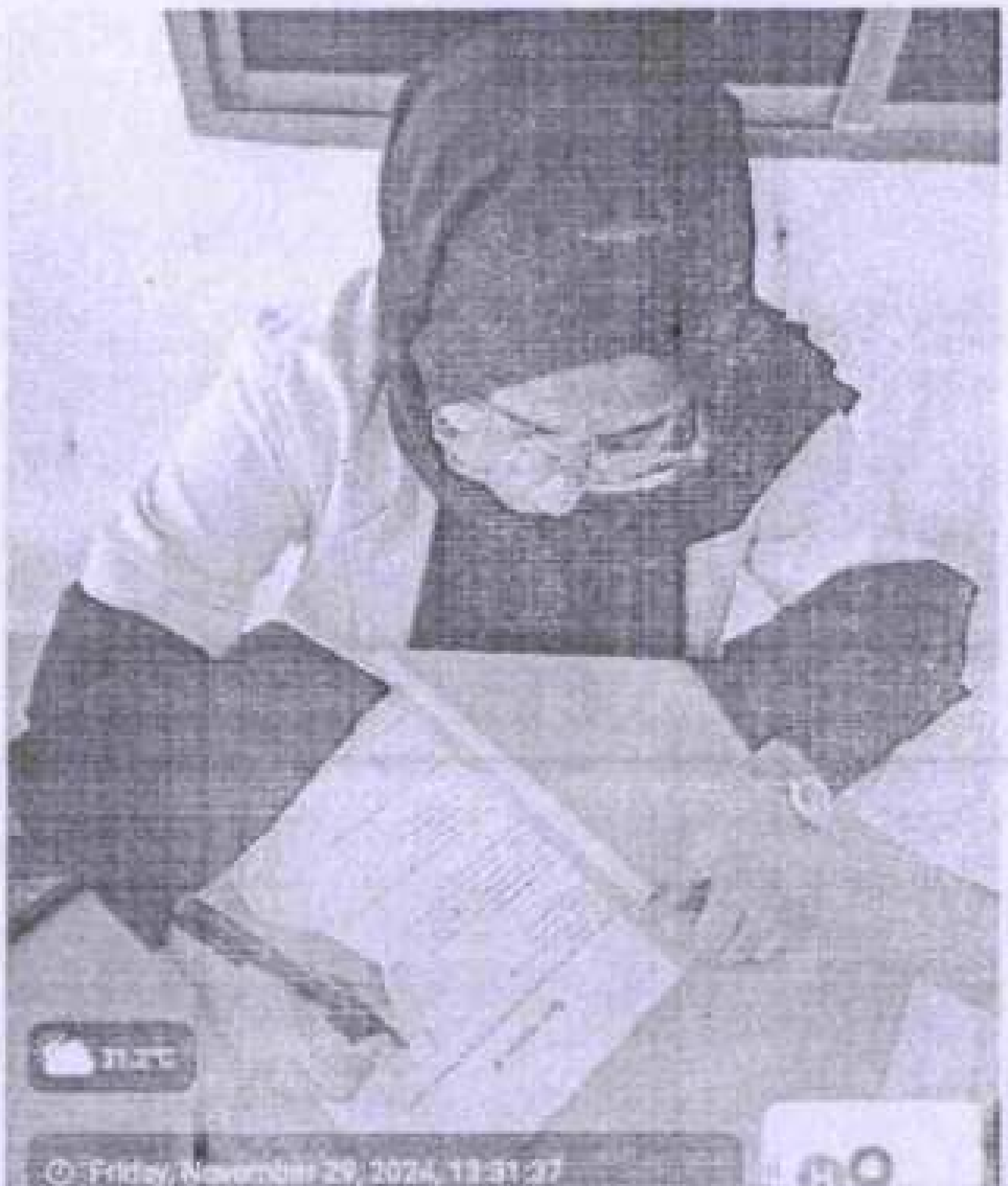
Interactive teaching techniques, such as using quiz-based learning , were employed to make learning engaging and enjoyable for slow performers. These tools reinforced knowledge through gamified challenges, improved retention, and encouraged active participation in a supportive environment.



Quiz –session -2

31.2°C

Friday, November 29, 2024, 12:30:15
8XGC+FPV, KMCT Medical College Rd, Manassery, Kerala 673572, India



31.2°C

Friday, November 29, 2024, 13:31:27
8XGC+FPV, KMCT Medical College Rd, Manassery, Kerala 673572, India

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Teaching among peers

The peer teaching method in the Department of Orthodontics effectively reinforced knowledge and encouraged collaboration. Students who taught their peers gained a deeper understanding of the material while developing key skills in communication, leadership, and critical thinking. The interactive learning environment fostered active engagement and improved overall student growth

31.4°C
Friday, November 29, 2024, 11:54:15
8XGC+FPV, KMCT Medical College Rd, Manassery, Kerala 673572, India
Google

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Principal
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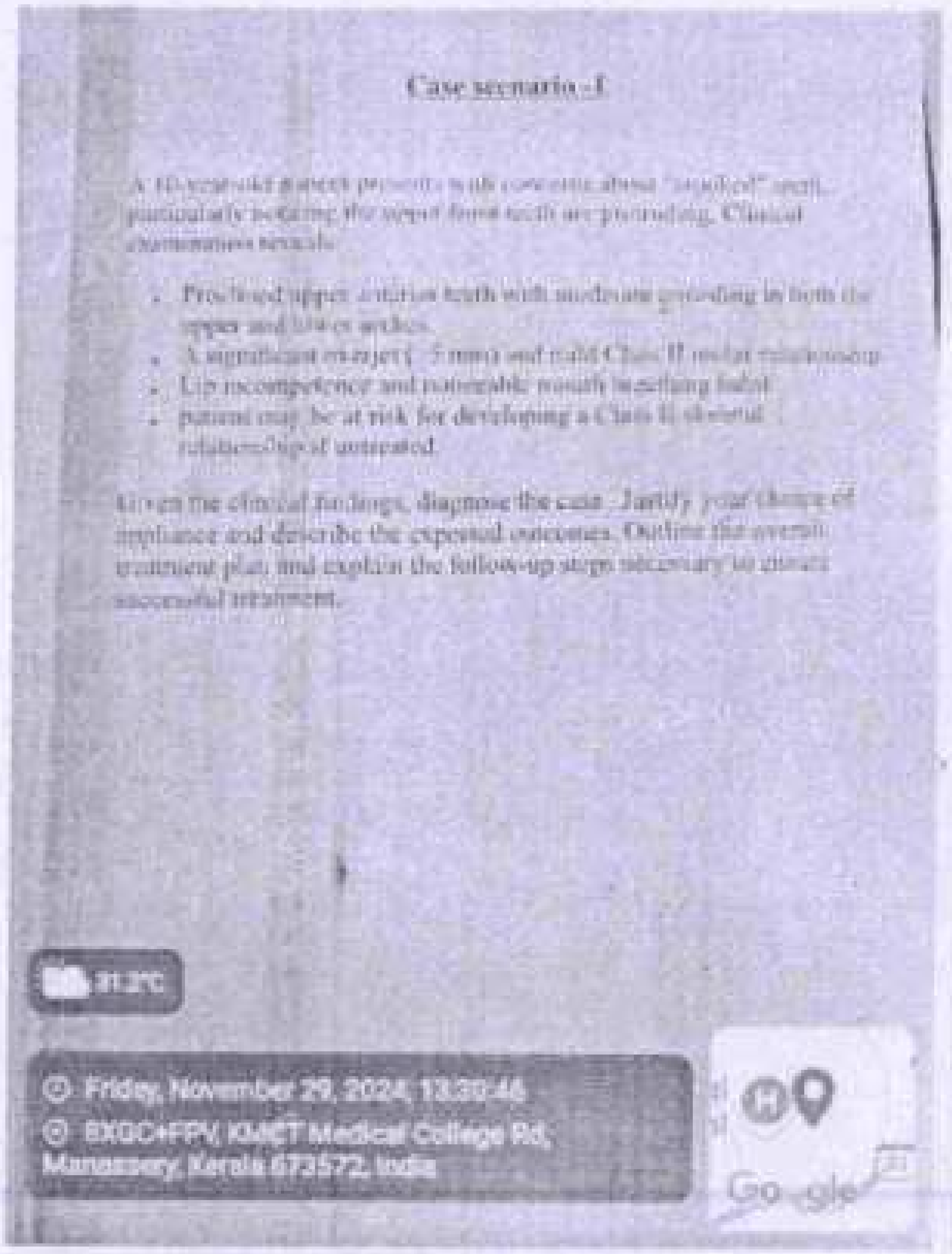
Manassery Mukkam

Problem-Based Learning (PBL)

Problem-Based Learning (PBL) methods were implemented by introducing real-life case scenarios to engage students in critical thinking. Step-by-step guidance was provided to support problem-solving and decision-making, enhancing practical understanding and analytical skills.



Case scenario -1

A [illegible]-year-old patient presents with concerns about "spoiled" teeth, particularly noticing the upper front teeth are protruding. Clinical examination reveals:

- Proclined upper anterior teeth with moderate crowding in both the upper and lower arches.
- A significant overjet ([illegible] mm) and mild Class II molar relationship
- Lip incompetence and noticeable mouth breathing habit
- patient may be at risk for developing a Class II skeletal relationship if untreated.

Given the clinical findings, diagnose the case. Justify your choice of appliance and describe the expected outcomes. Outline the overall treatment plan and explain the follow-up steps necessary to ensure successful treatment.

31.2°C

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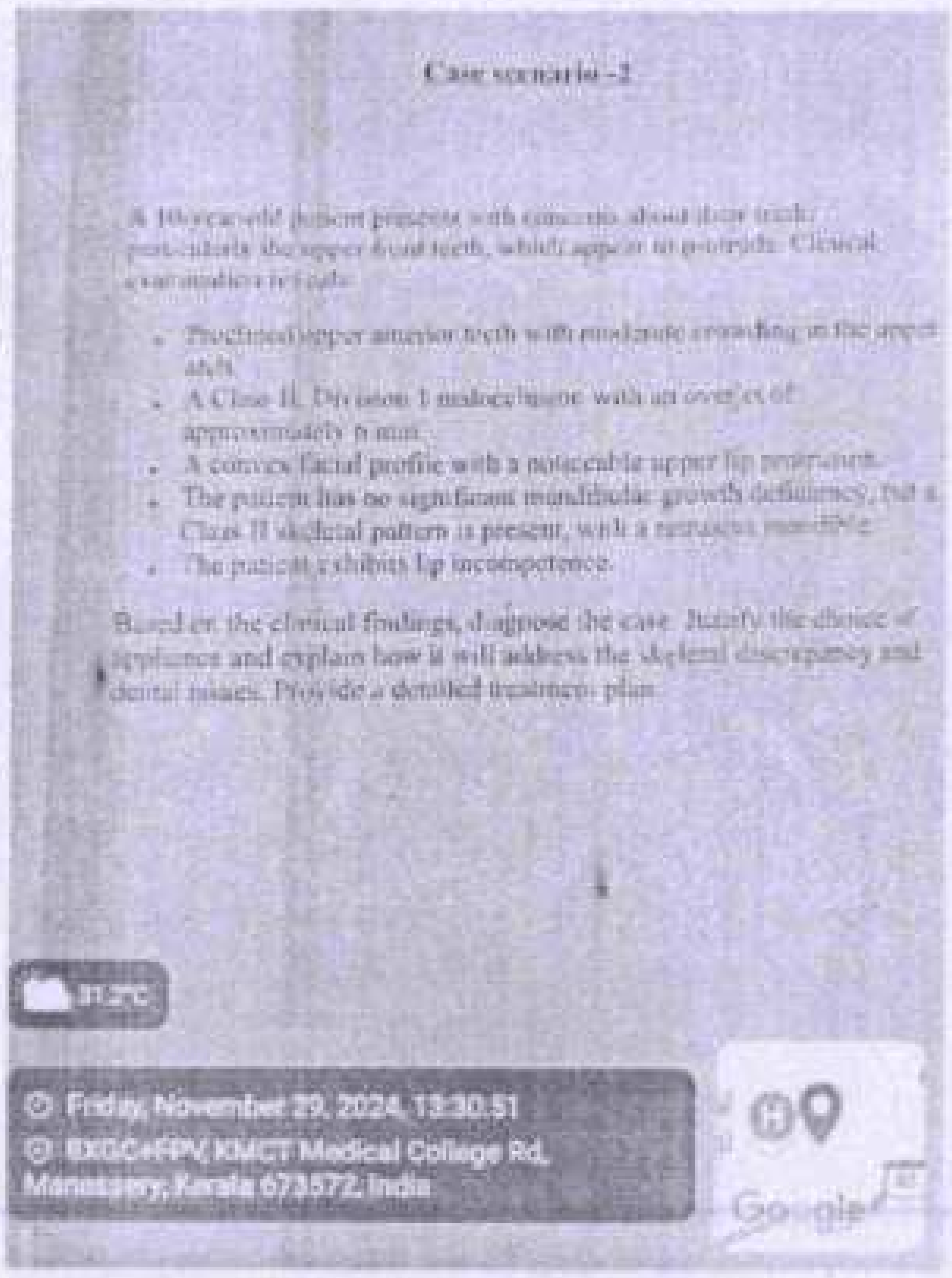

Case scenario -2

A [illegible]-year-old patient presents with concerns about their teeth, particularly the upper front teeth, which appear to protrude. Clinical examination reveals:

- Proclined upper anterior teeth with moderate crowding in the upper arch.
- A Class II, Division 1 malocclusion with an overjet of approximately [illegible] mm.
- A convex facial profile with a noticeable upper lip protrusion.
- The patient has no significant mandibular growth deficiency, but a Class II skeletal pattern is present, with a retrusive mandible.
- The patient exhibits lip incompetence.

Based on the clinical findings, diagnose the case. Justify the choice of appliance and explain how it will address the skeletal discrepancy and dental issues. Provide a detailed treatment plan.

31.2°C

Friday, November 29, 2024, 13:30:51
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Demonstration and Guided Practice.

Demonstration and guided practice methods were used by performing step-by-step demonstrations with detailed explanations, followed by students replicating the tasks. The "see one, do one, teach one" approach was implemented to reinforce learning and build confidence effectively.

"SEE ONE"

"DO ONE"

"TEACH ONE"

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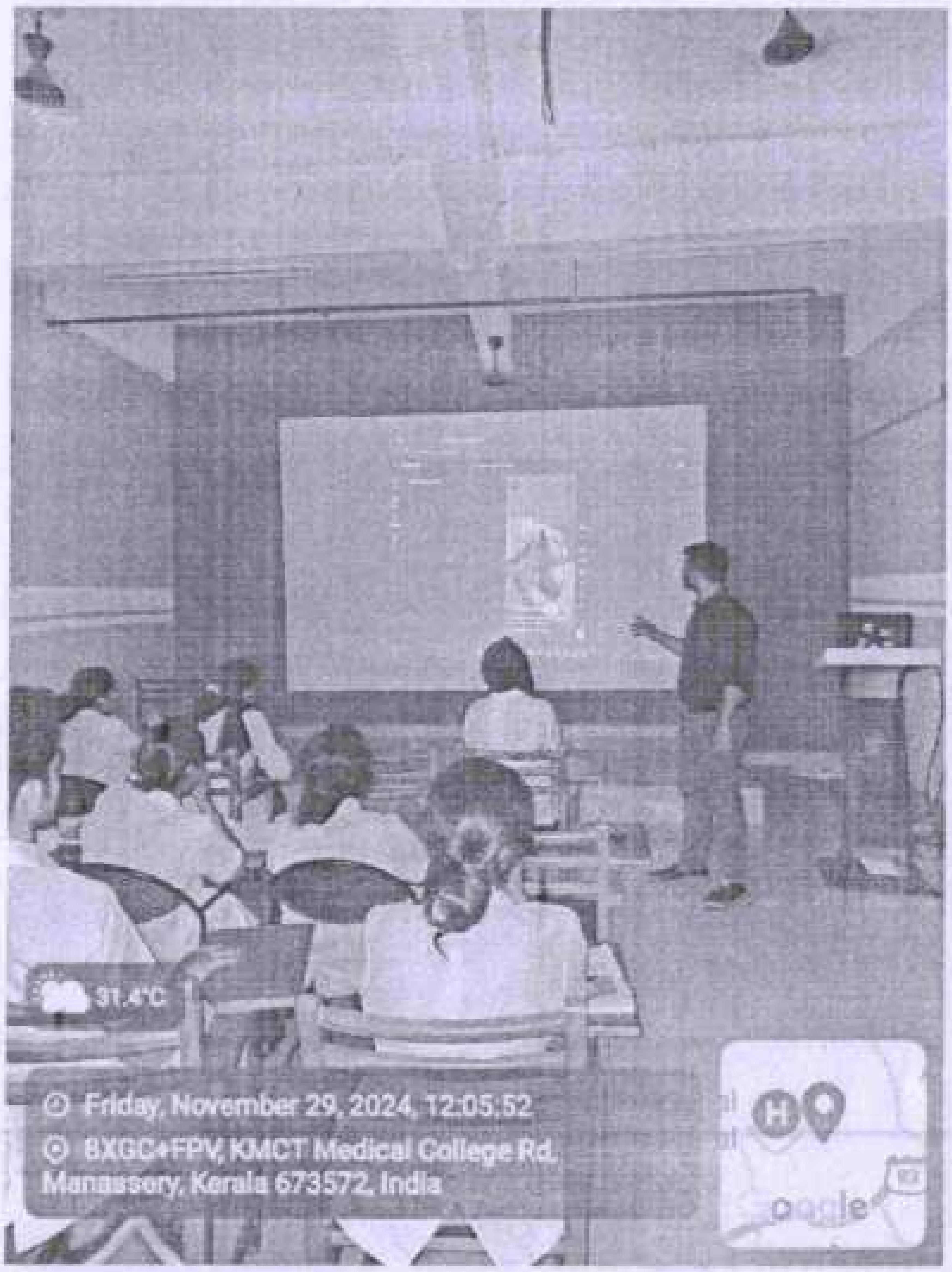
Visual Learning Aids.

Visual learning aids, such as videos and augmented reality, were incorporated to demonstrate techniques like orthodontic wire bending. These tools provided clear, dynamic visuals to enhance understanding and improve skill acquisition.



31.4°C

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Role-Playing Scenarios

Role-playing scenarios were utilized to simulate patient interactions, allowing students to practice communication skills and treatment planning. Constructive feedback was provided on their approach to managing patient concerns, fostering improvement in clinical and interpersonal competencies.

Role play on couple mechanics

GPS Map Camera

Manassery, Kerala, India

8XGC+FPV, KMCT Medical College Rd, Manassery, Kerala 673572, India

Lat 11.326356°

Long 75.971864°

10/08/22 12:23 PM

Dr. MANOJ KUMAR [illegible]
Principal
KMCT Dental College

One-on-One Mentoring

One-on-one mentoring was implemented by pairing slow learners with experienced mentors or teaching assistants and also with interns posted in the department for personalized guidance. Real-time feedback was provided during procedures, enabling immediate correction of mistakes and fostering skill development.

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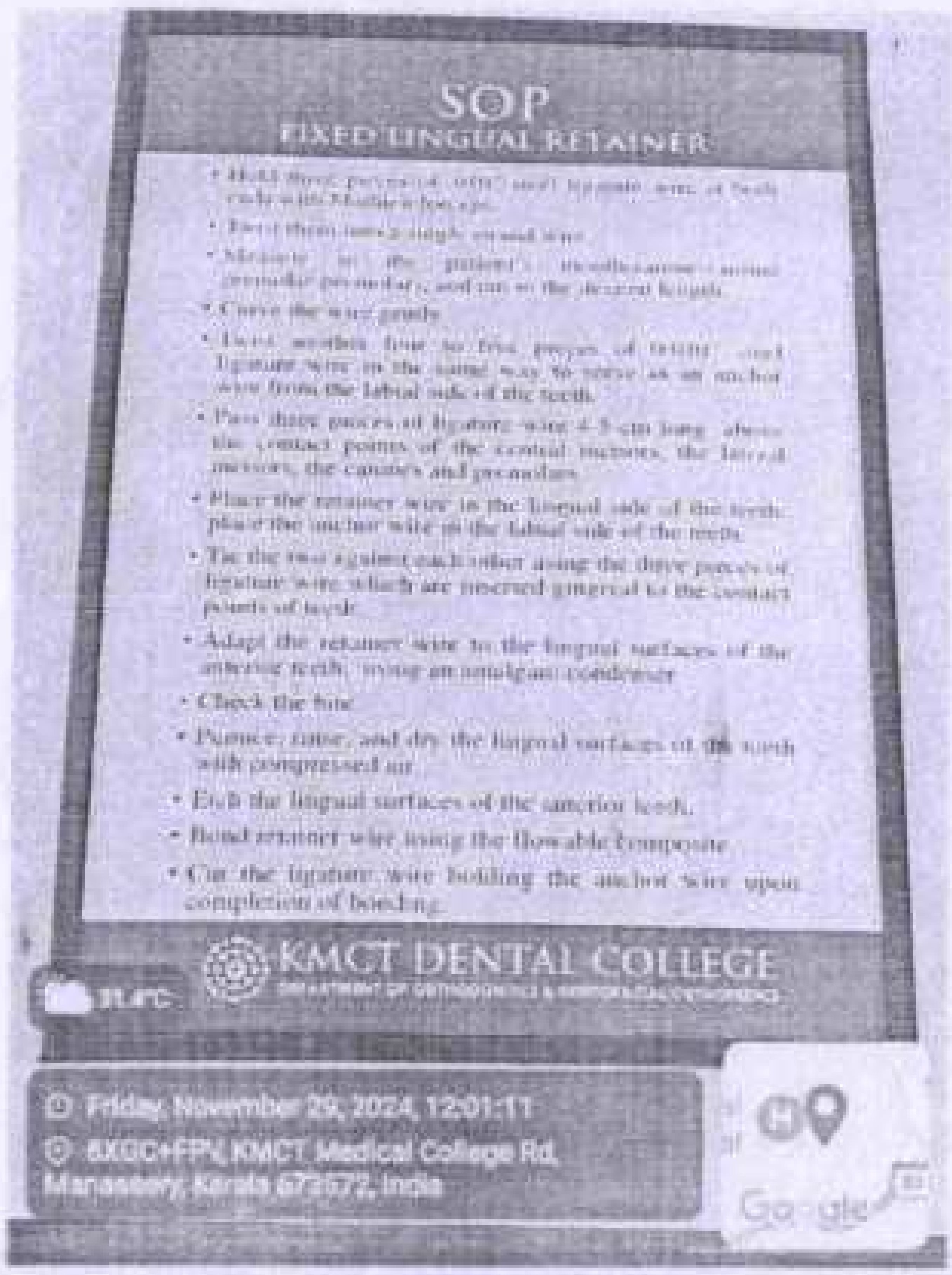
Standard Operating Procedures (SOP) for Slow performers

Standard Operating Procedures (SOP) were printed and made accessible in the department to aid slow learners in quick decision-making. These SOPs outlined priority-based clinical procedures, enabling students to follow clear guidelines and minimize errors during treatment.



SOP
FIXED LINGUAL RETAINER

- [illegible]
- [illegible]
- [illegible]
- Curve the wire gently
- [illegible] ligature wire in the same way to serve as an anchor wire from the labial side of the teeth.
- Pass three pieces of ligature wire 4-5 cm long above the contact points of the central incisors, the lateral incisors, the canines and premolars
- Place the retainer wire in the lingual side of the teeth; place the anchor wire in the labial side of the teeth
- Tie the two against each other using the three pieces of ligature wire which are inserted [illegible] to the contact points of teeth
- Adapt the retainer wire to the lingual surfaces of the anterior teeth, using an amalgam condenser
- Check the fit
- Pumice, rinse, and dry the lingual surfaces of the teeth with compressed air
- Etch the lingual surfaces of the anterior teeth.
- Bond retainer wire using the flowable composite
- Cut the ligature wire holding the anchor wire upon completion of bonding.

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31.4°C

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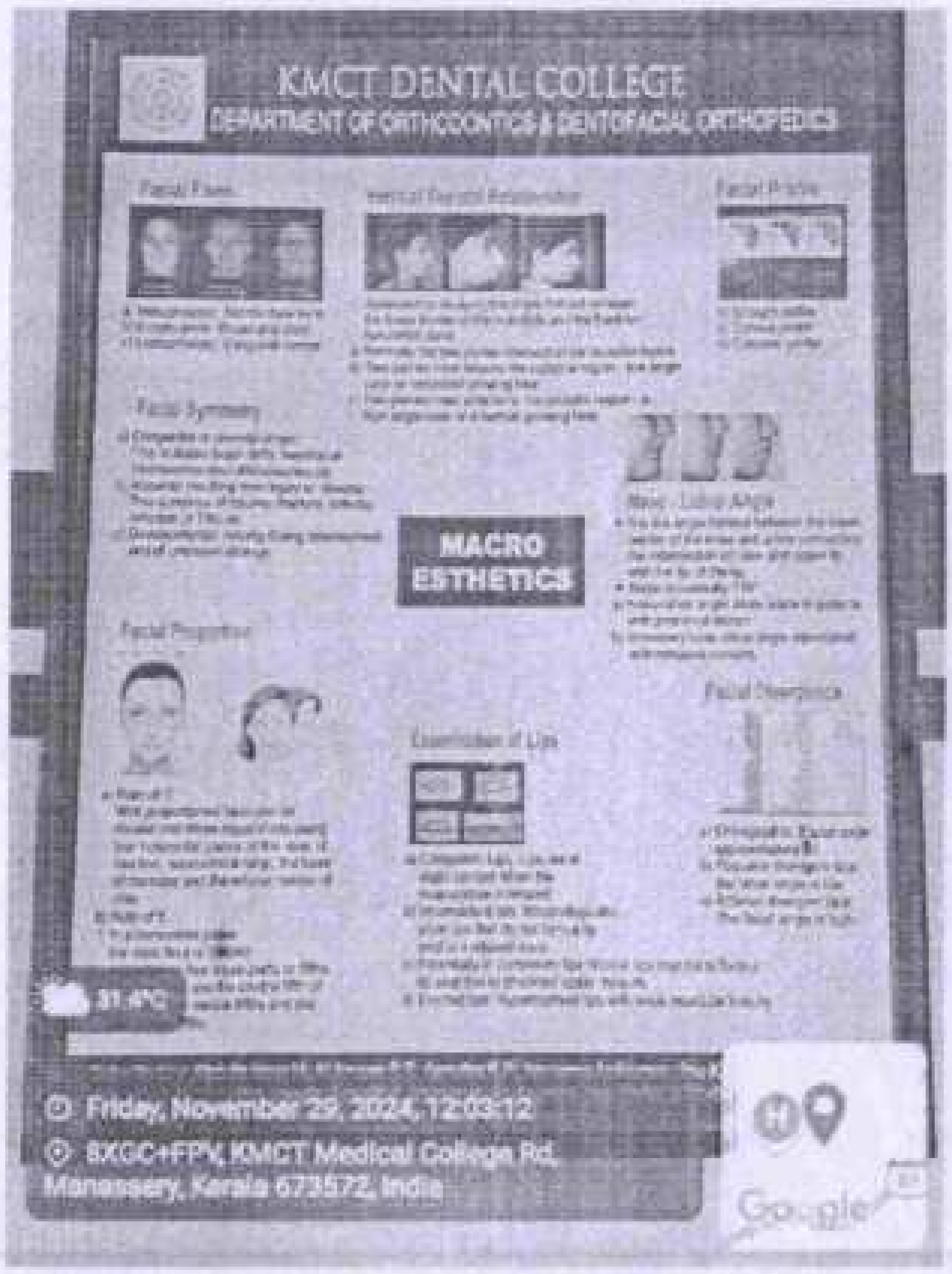

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DEPARTMENT OF ORTHODONTICS & DENTOFACIAL ORTHOPEDICS

Facial Form
Vertical Facial Relationship
Facial Profile
Facial Symmetry
Naso - Labial Angle
MACRO ESTHETICS
Facial Proportion
Examination of Lips
Facial Divergence

31.4°C

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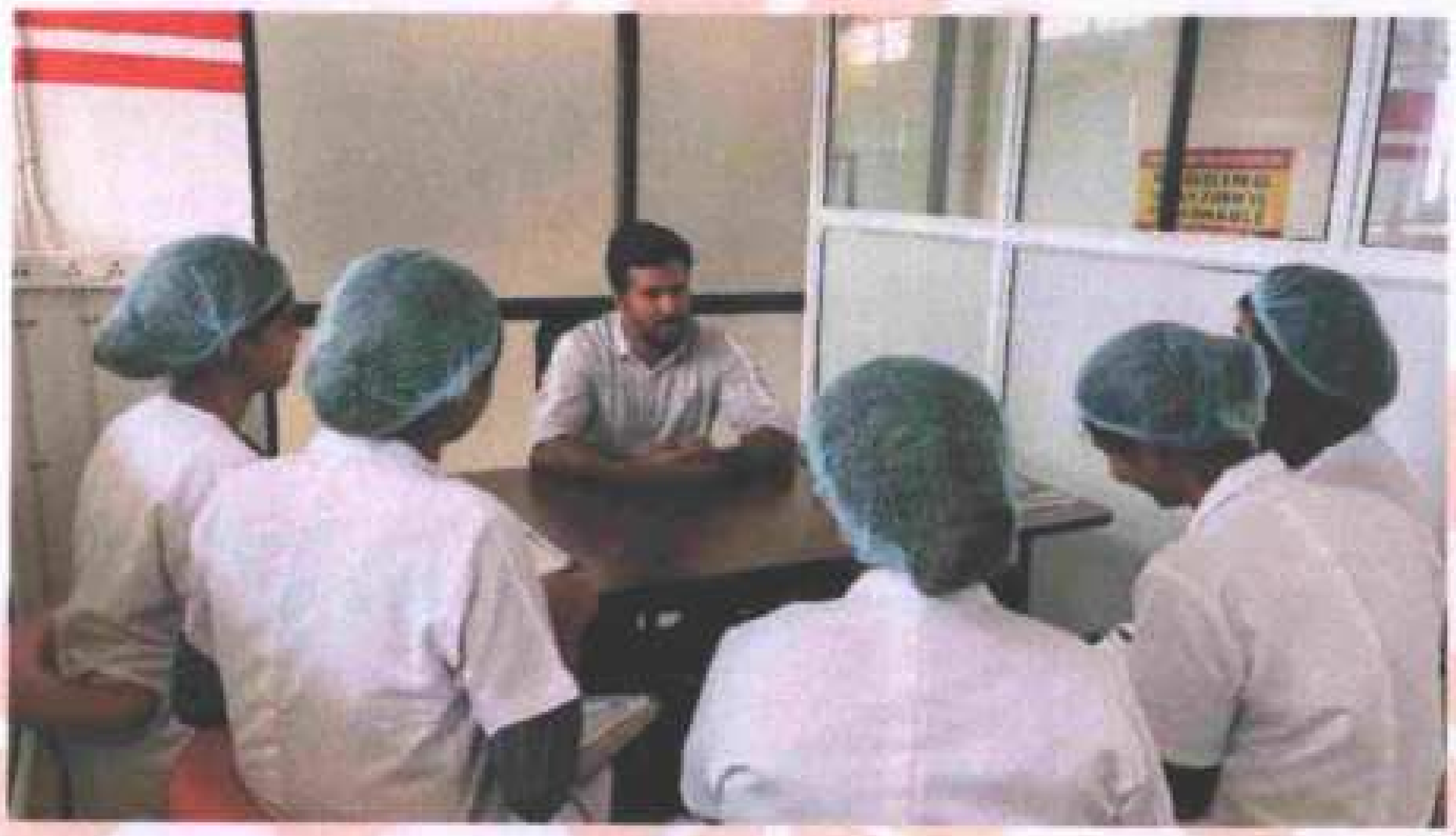
KMCT
DENTAL COLLEGE

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

DETAILS OF SPECIAL PROGRAMS FOR SLOW PERFORMERS

Continuous Monitoring And Individual Attention By Mentors:

Students were recognized as slow performers based on their internal marks , practical skill and knowledge. The students were then identified and allotted mentors for their academic improvement. Students were given special attention to improve their subject knowledge and well motivated for better performance.



Special Classes With Subject Experts:

Slow performers attend special classes provided by subject experts to enhance their topic knowledge and for better understanding the concepts. The sessions with subject expert provides a forum for them to clear their doubts and even discuss on various clinical findings for more exposure on challenging case study.

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Encouragement Of Collaborative Study With Advanced Learners:

Collaborative study among slow performers and advanced learners were organized such that students interact among their peer group for better topic understanding and motivation to learn better. The advanced learners provide short lectures to slow learners among their batch students so that a well interacted session and can help them to remember the key points and will help them to score better in academics.

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Counselling For Students And Parents With Psychologists:

Psychologists under the Happiness department of KMCT Dental College provide counselling to students so that they can be guided, motivated and cater a stress free academics at KMCT Dental College so that they feel ease at learning and perform better during examinations.

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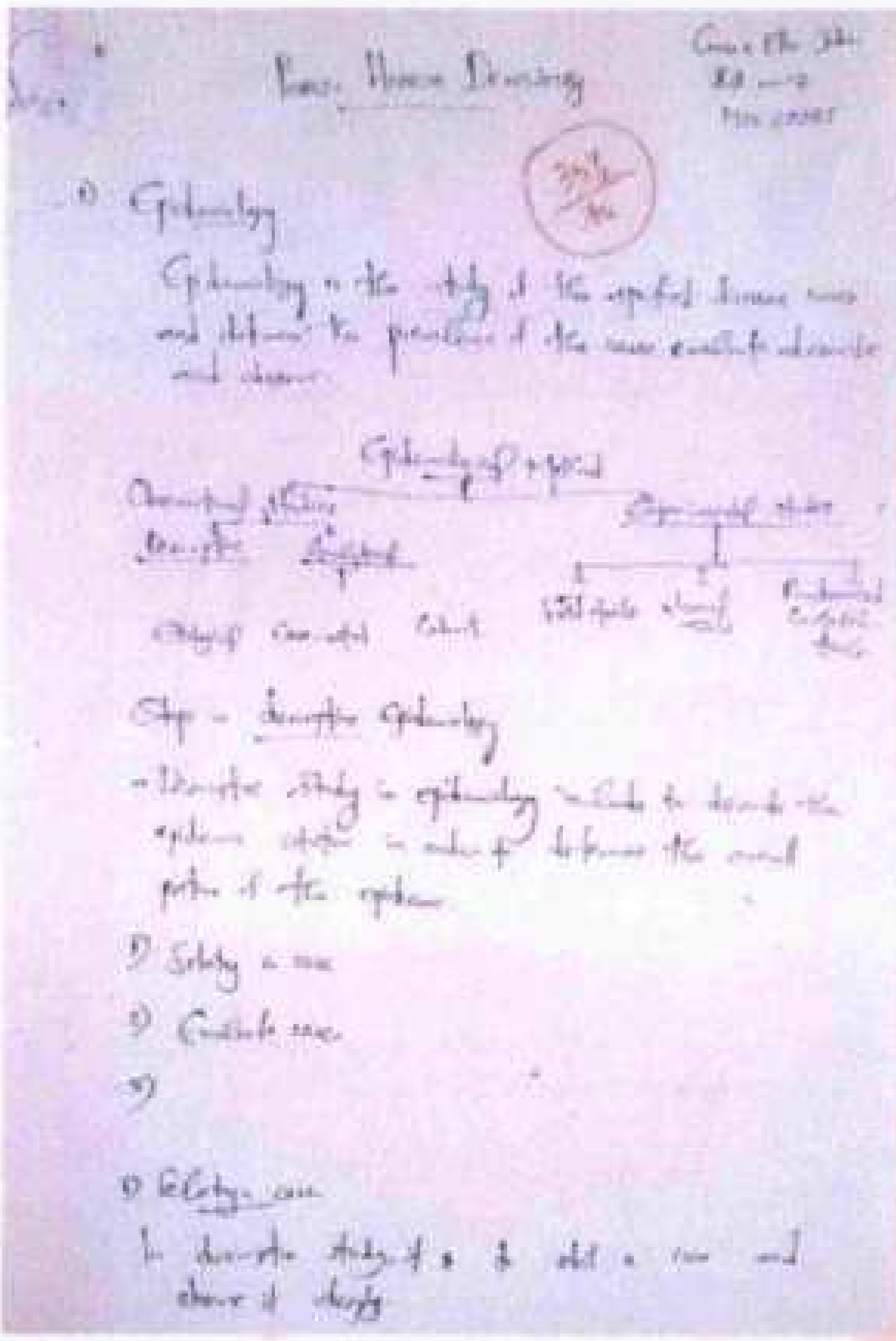
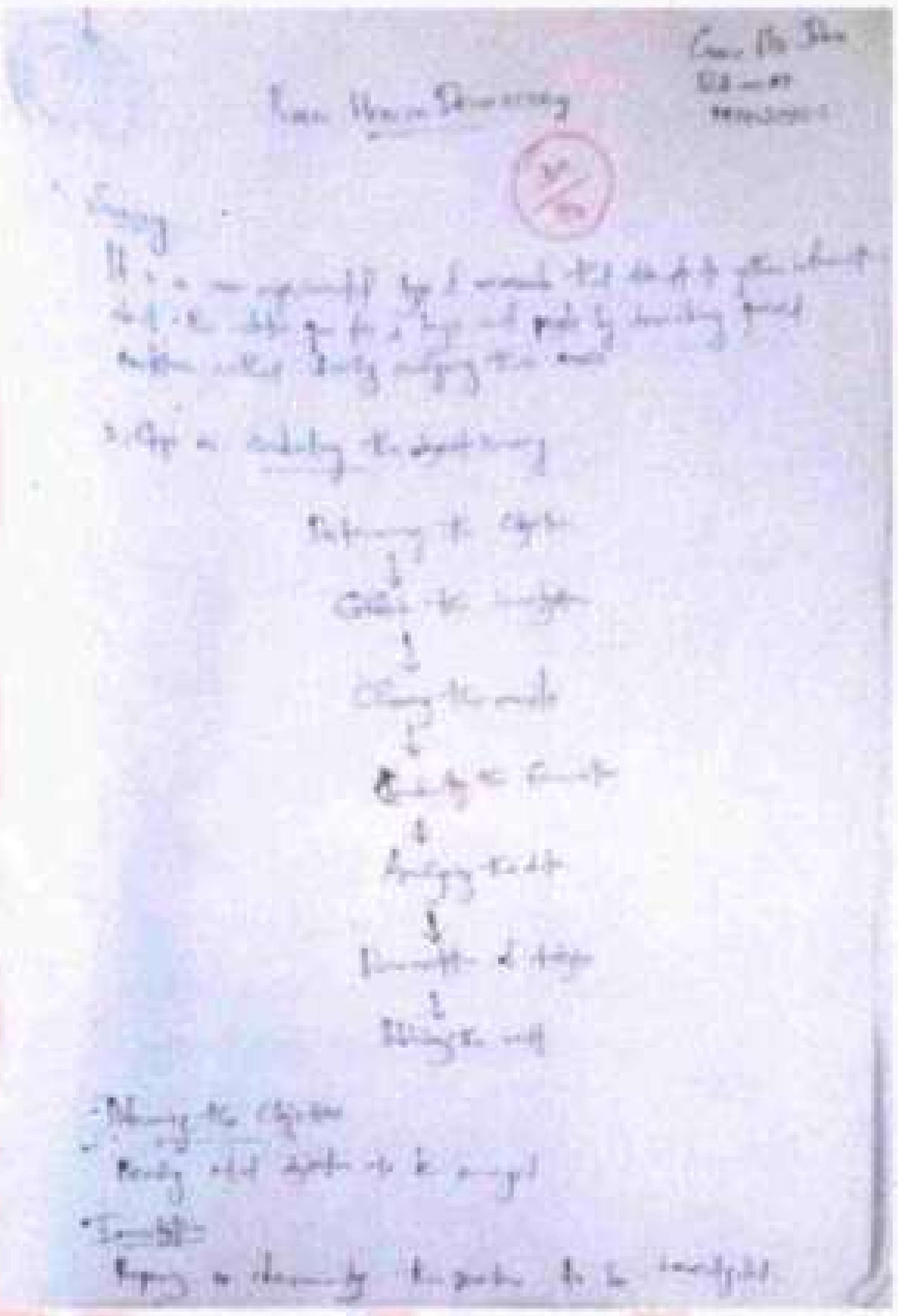
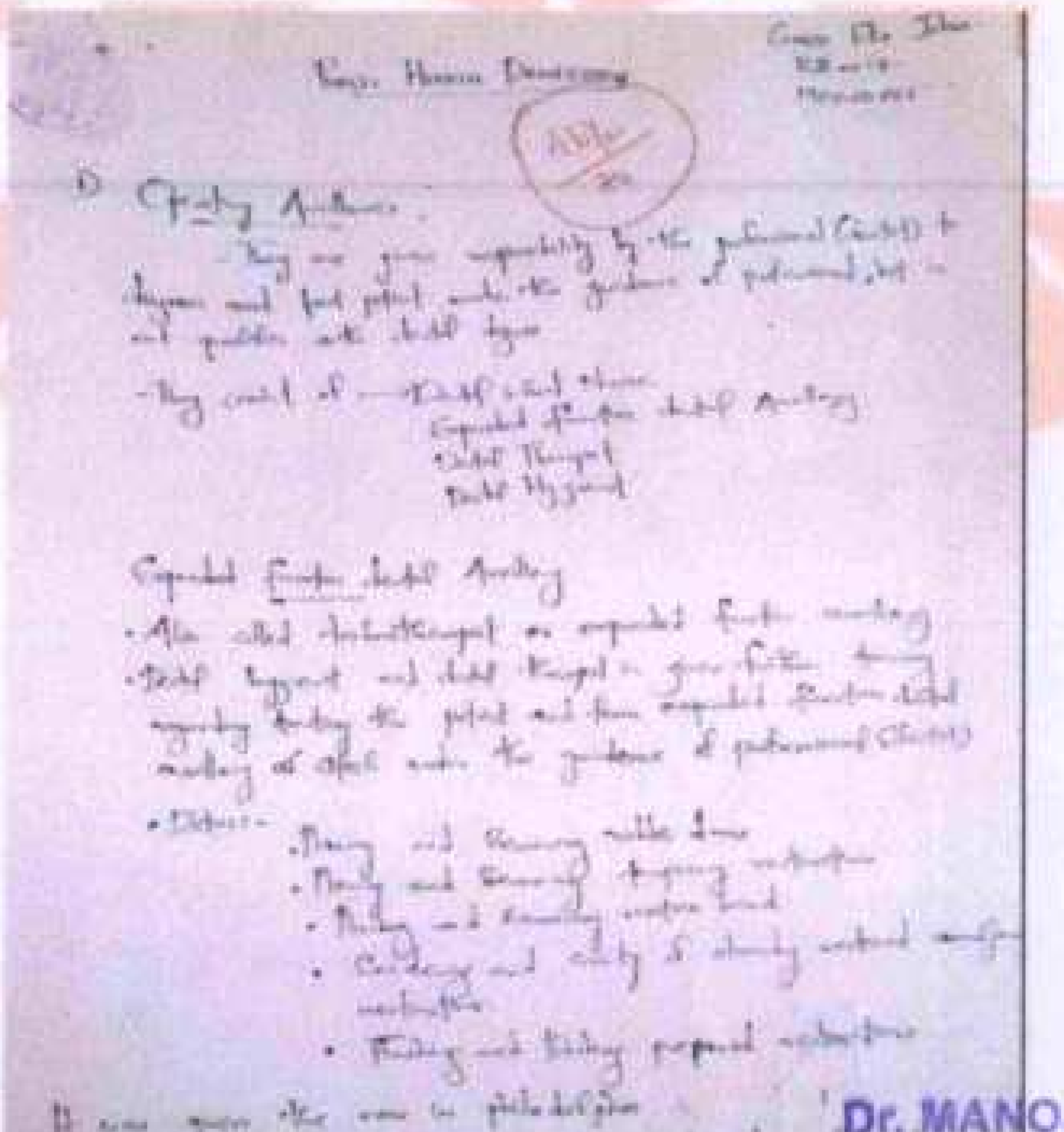
Rapid Revision And Revision Tests Before University Examinations:

Rapid revision tests were conducted for slow performers for boosting their academic performance and for proper time management. Attention was given to notify whether the candidate showed improvement in each module exam.







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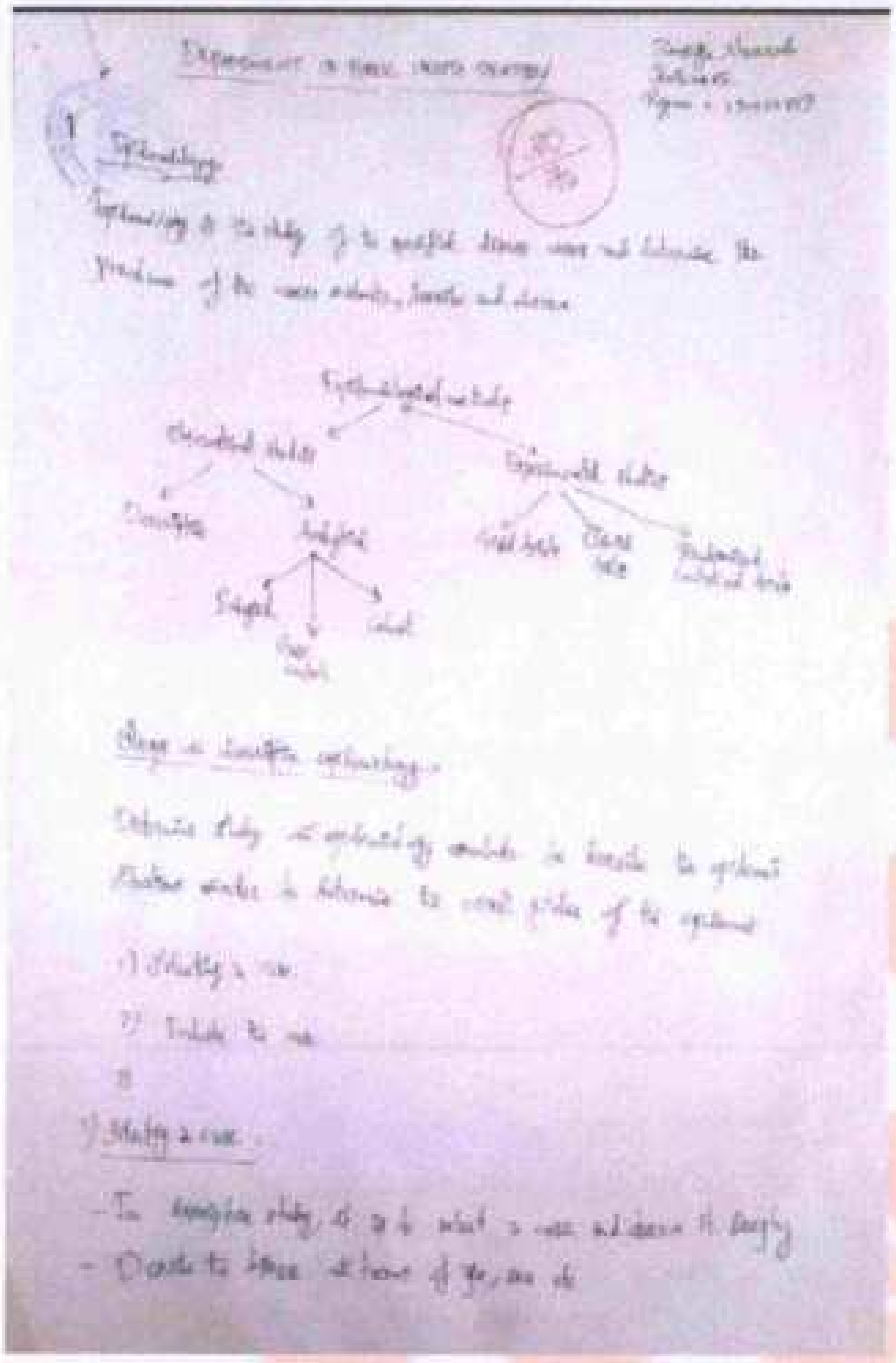

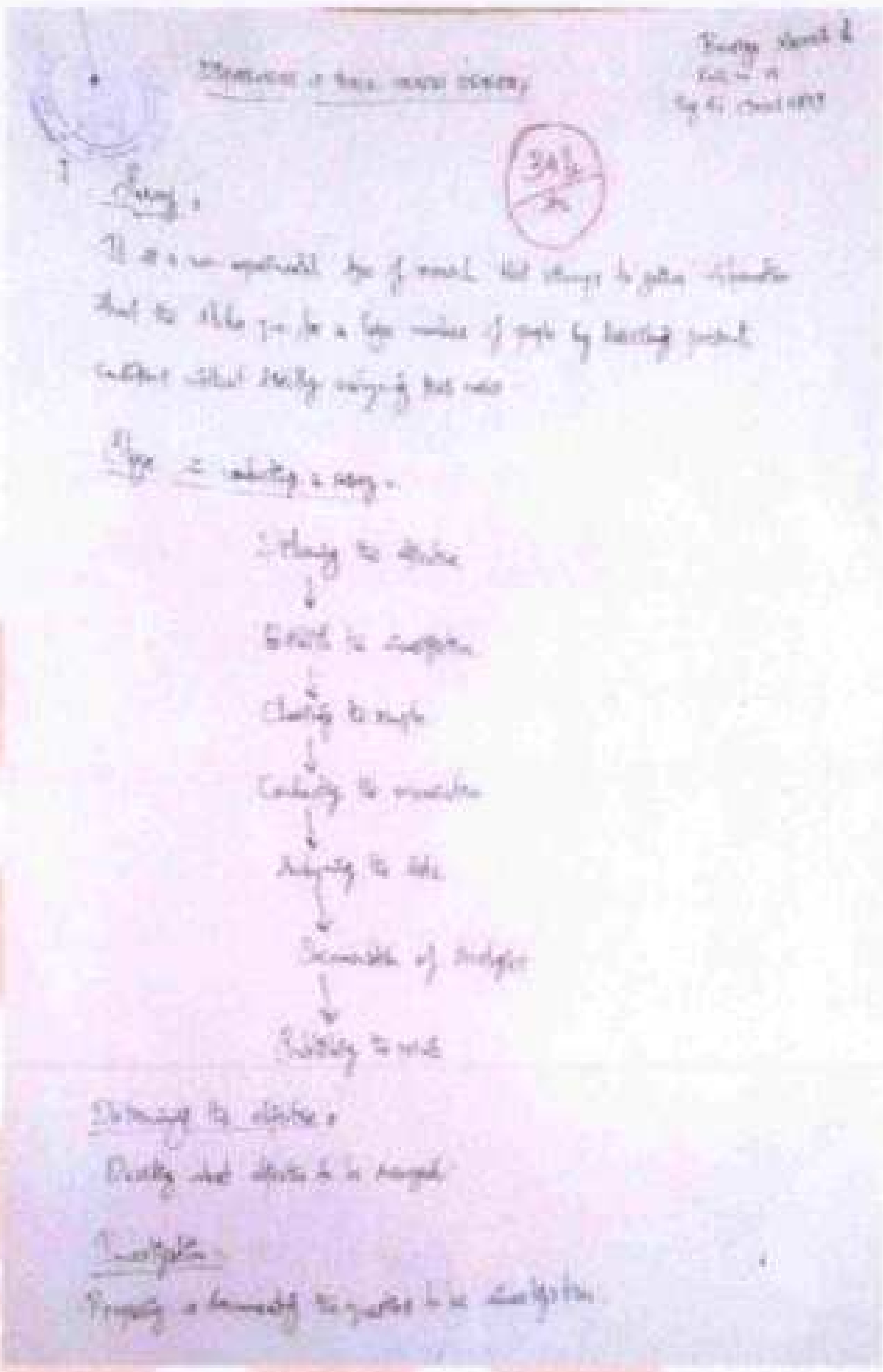

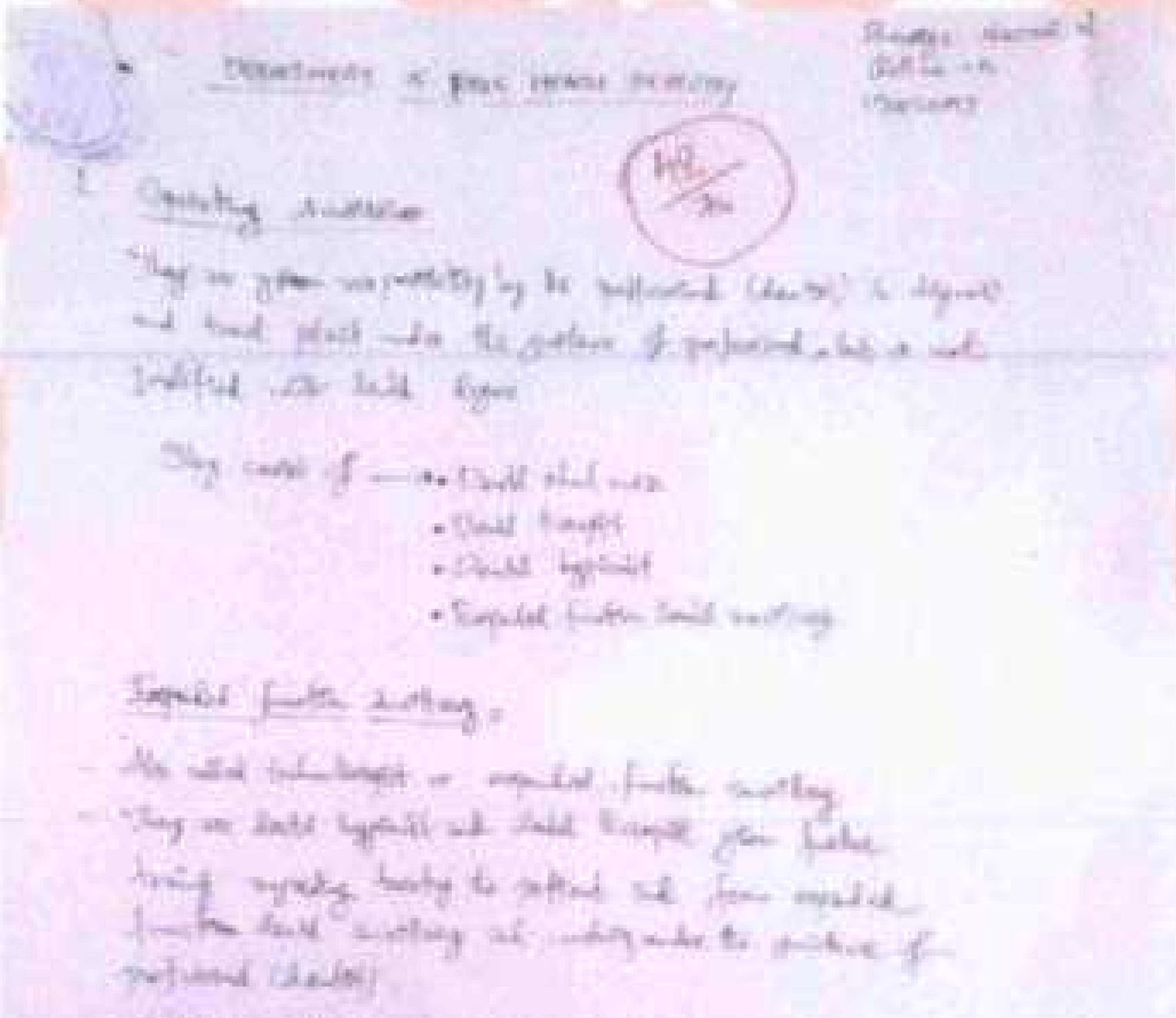

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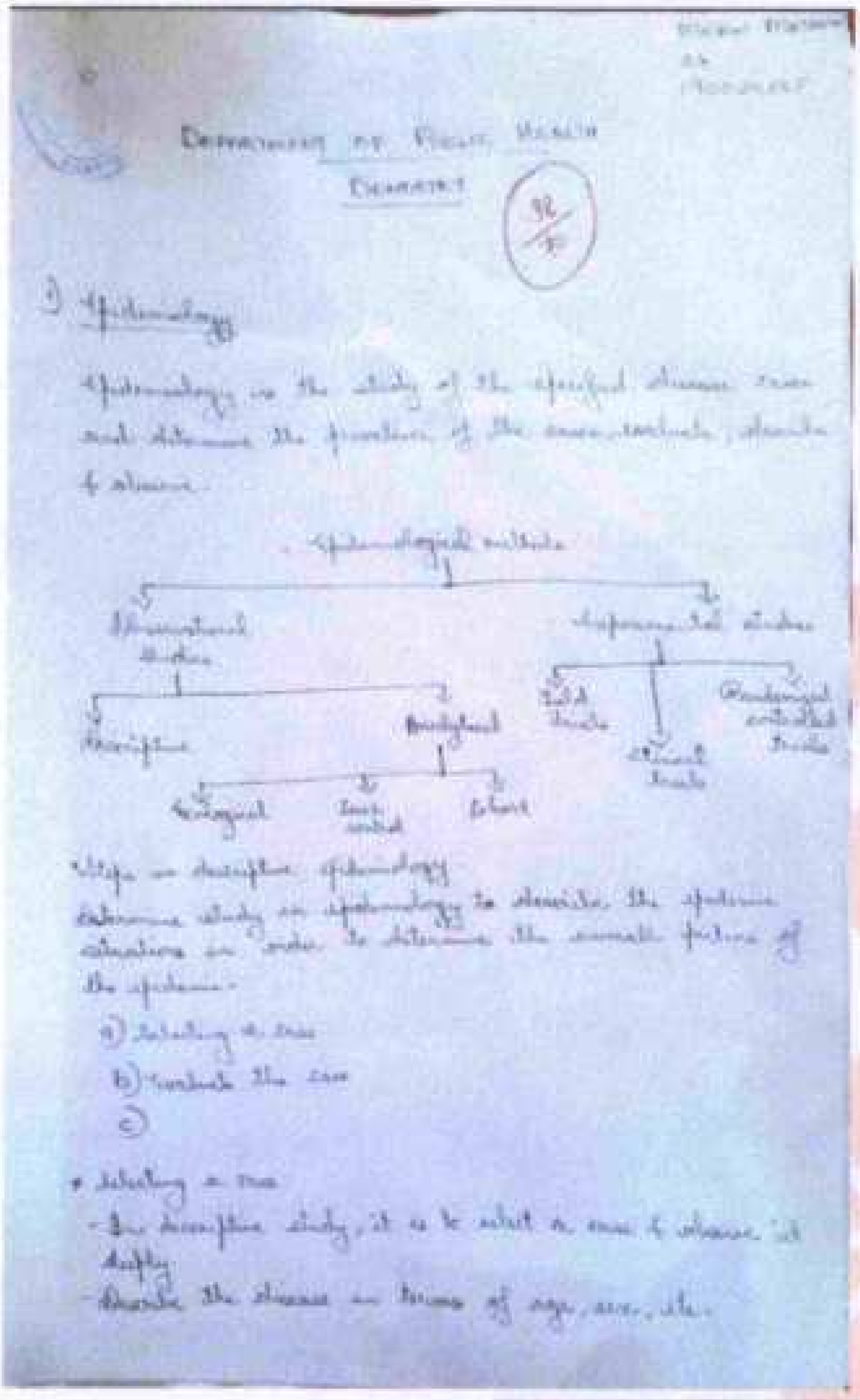


DEPARTMENT OF PUBLIC HEALTH DENTISTRY

1) Epidemiology

[illegible]

Epidemiological methods

Observational studies

Experimental studies

Descriptive

Analytical

Ecological

Case control

Cohort

Field trials

Clinical trials

Randomized controlled trials

Steps in descriptive epidemiology

[illegible]

a) Selecting a case

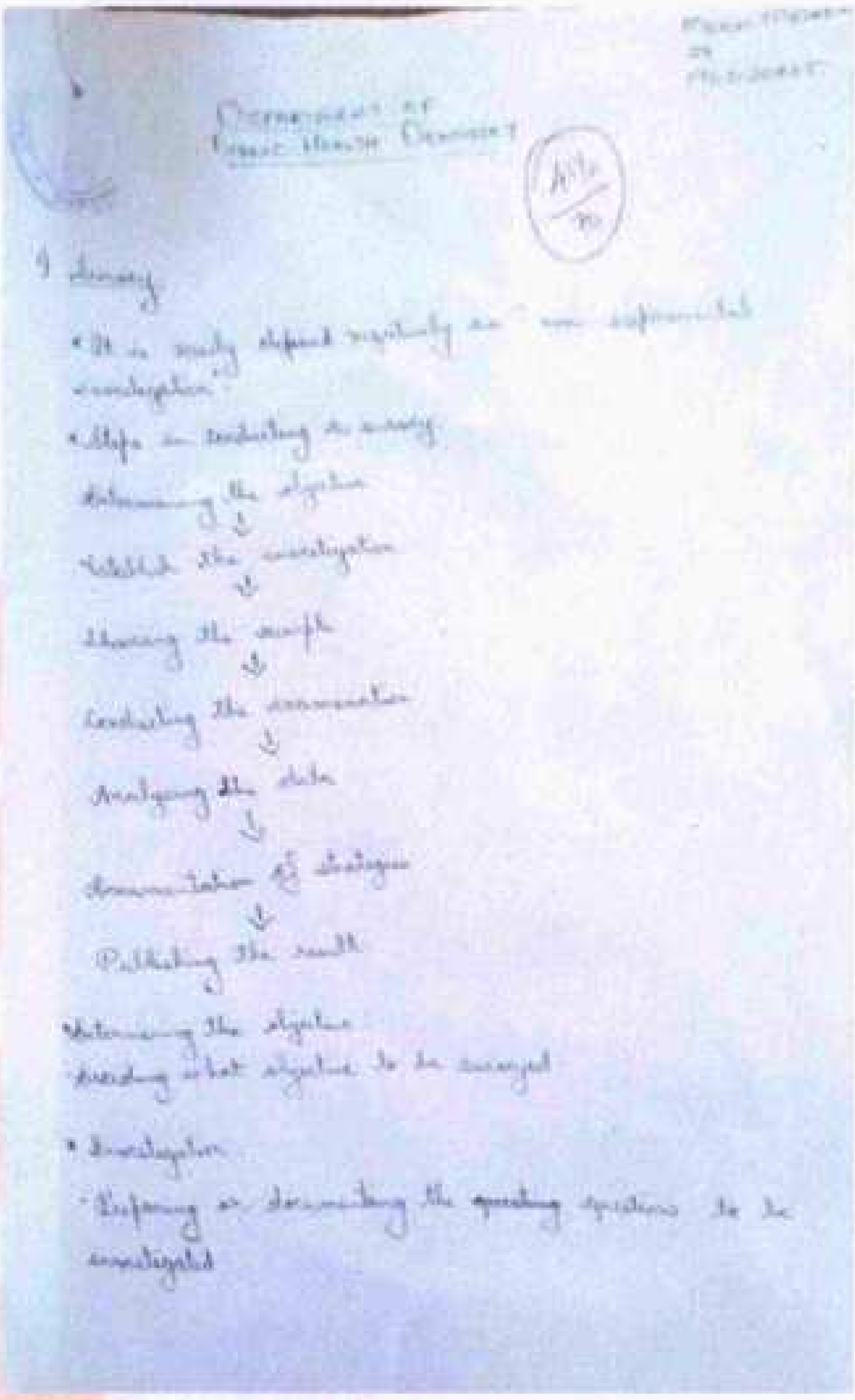
b) Contact the case

c)

- Selecting a case

[illegible]

- Describe the disease in terms of age, sex, etc.



DEPARTMENT OF PUBLIC HEALTH DENTISTRY

1) Survey

[illegible]

- Steps in conducting a survey

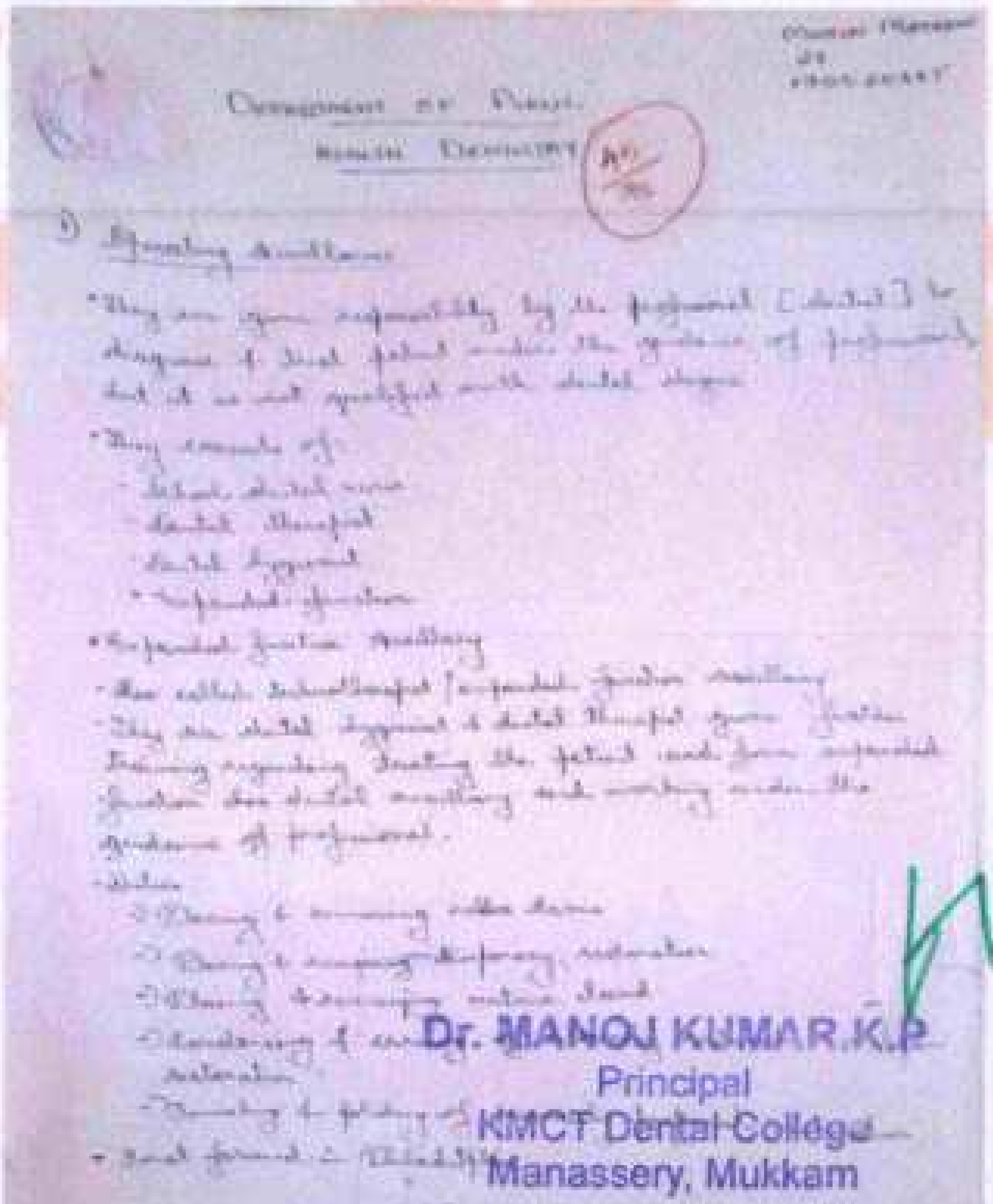
Determining the objective
↓
Establish the investigation
↓
Choosing the sample
↓
Conducting the examination
↓
Analysing the data
↓
Presentation of strategies
↓
Publishing the result

- Determining the objective

Deciding what objective to be surveyed

- Investigation

[illegible]



DEPARTMENT OF PUBLIC HEALTH DENTISTRY

1) Operating auxiliaries

[illegible]

- They consists of:
  - School dental nurse
  - Dental therapist
  - Dental hygienist
  - Expanded function

- Expanded function auxiliary

[illegible]

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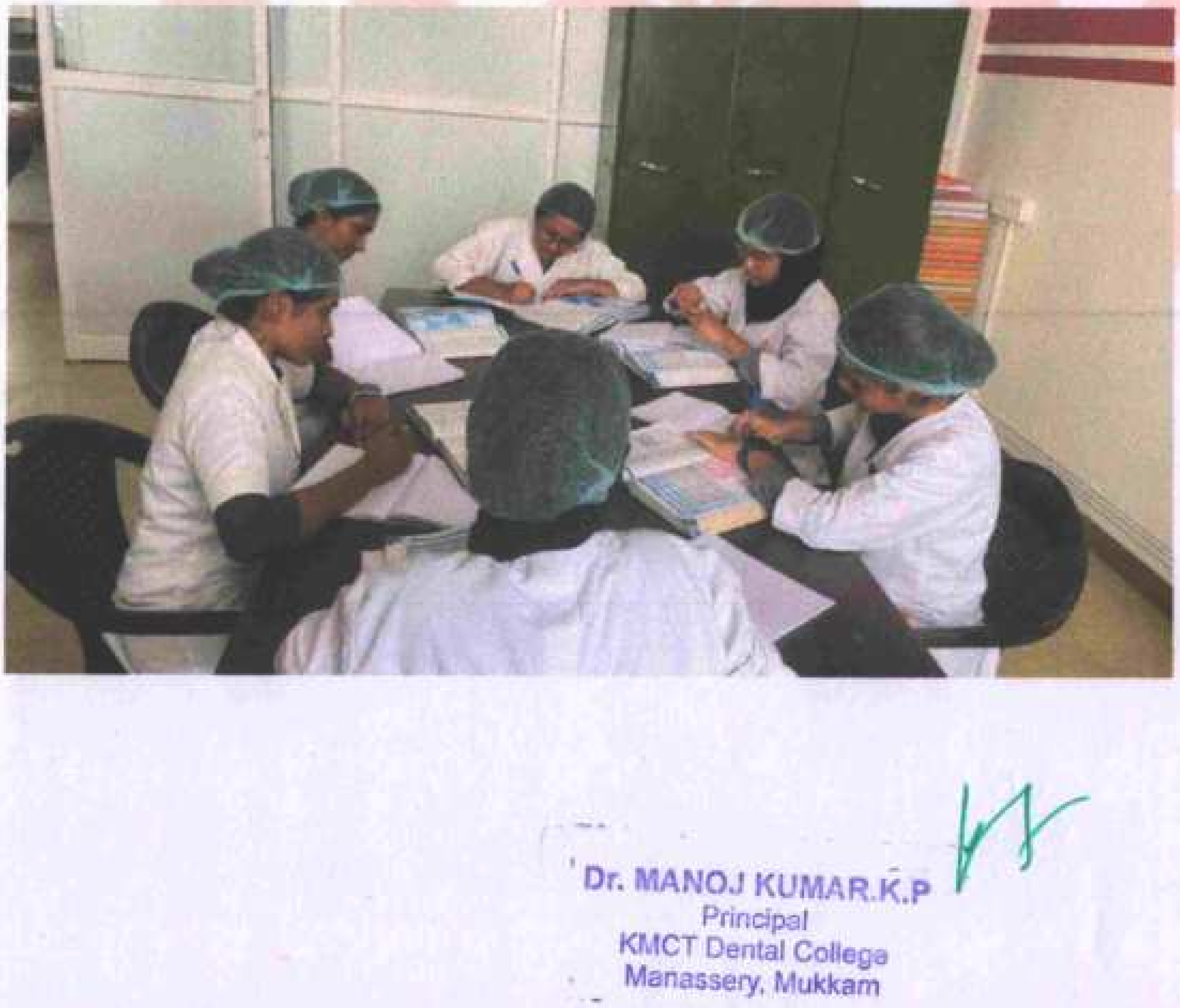
Encouraging Reading Books With Simple Language:
Students were encouraged to utilize the special books at the library and department library during clinical postings so that certain concepts are learned in a detail manner and are useful to the students for answering in their exam better and can enhance their subject knowledge.



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Customized Learning Plans:

A detail learning plan is designed for better understanding the topic with ease mentioning the key points of the topic in which the candidate can remember and help in recalling and revising better.

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

LESSON PLAN	
LESSON TITLE	ATRAUMATIC RESTORATIVE TREATMENT
TEACHER	ARUN PAUL
BATCH	FINAL YEAR PART 1 REGULAR (BATCH 2023-2024)
DATE	

DURATION : 1 hour

Objective :

- By the end of the class, the students will be able to:
- Define ART.
- Understand the principles and techniques of ART
- Understand the indications and contraindications of ART
- Discuss the advantages and disadvantages of ART
- Understand the steps in ART

Materials:

- Powerpoint presentation slides
- A natural tooth model (mounted natural tooth)
- Hand instruments (mouth mirror, explorer, tweezer, spoon excavator, enamel hatchet, GIC, GIC mixing pad, agates spatula, cotton pellets, cotton rolls, petroleum jelly)
- Sterile gloves and mask

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Introduction: (5 minutes)

- Brief overview of dental caries as a public health problem

- Explain the need for minimally invasive and cost effective solutions
- Introduce ART as an evidence based approach in public health dentistry

Definition and Principles of ART : (10 minutes)

Definition : ART is a minimally invasive care approach in preventing dental caries and stopping its further progression .

Principles:

- Removing carious tooth tissues with hand instruments only
- Restoring the cavity with a restorative material that sticks to the tooth.

Indications and contraindications : (15 minutes)

Indications:

- Small to medium sized cavities
- Cavities accessible to hand instruments
- Can be used in public health programs

Contraindications:

- Swelling, fistula
- Pulp exposure
- Painful teeth where there is inflammation of the pulp
- Obvious carious cavity but the opening is not accessible to hand instruments.
- Clear sign of cavity but proximal surface cannot be entered through proximal or occlusal direction.

Advantages : (10 minutes)

Advantages:

- Biological approach
- Painless and no need of local anaesthesia
- Better infection control
- Not electrically driven so can be implemented at remote areas
- Simple- can train a non dental professional
- Cost effective
- Can be used for children,fearful adults, physically and mentally challenged and even for those handicapped
- Restorative care more accessible for all population group.

Steps in ART: (15 minutes)

1. Arrange a good working environment
    - Outside the mouth

Operator's work posture and position
Patient position
Head position

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Operating light

- Inside the mouth

Control saliva contamination

2. Restoring the cavity
    - Caries removal
    - Cleaning the cavity
    - Conditioning the cavity
    - Mixing GIC
    - Restoring the cavity
3. Hygiene and control of cross infections

Assessment and feedback: (5 minutes)

Quiz: Include multiple choice and short answer questions to evaluate understanding

Practical demonstration : Observe students perform ART on models during clinical posting hours.

Feed back from the students were taken at the end of class.

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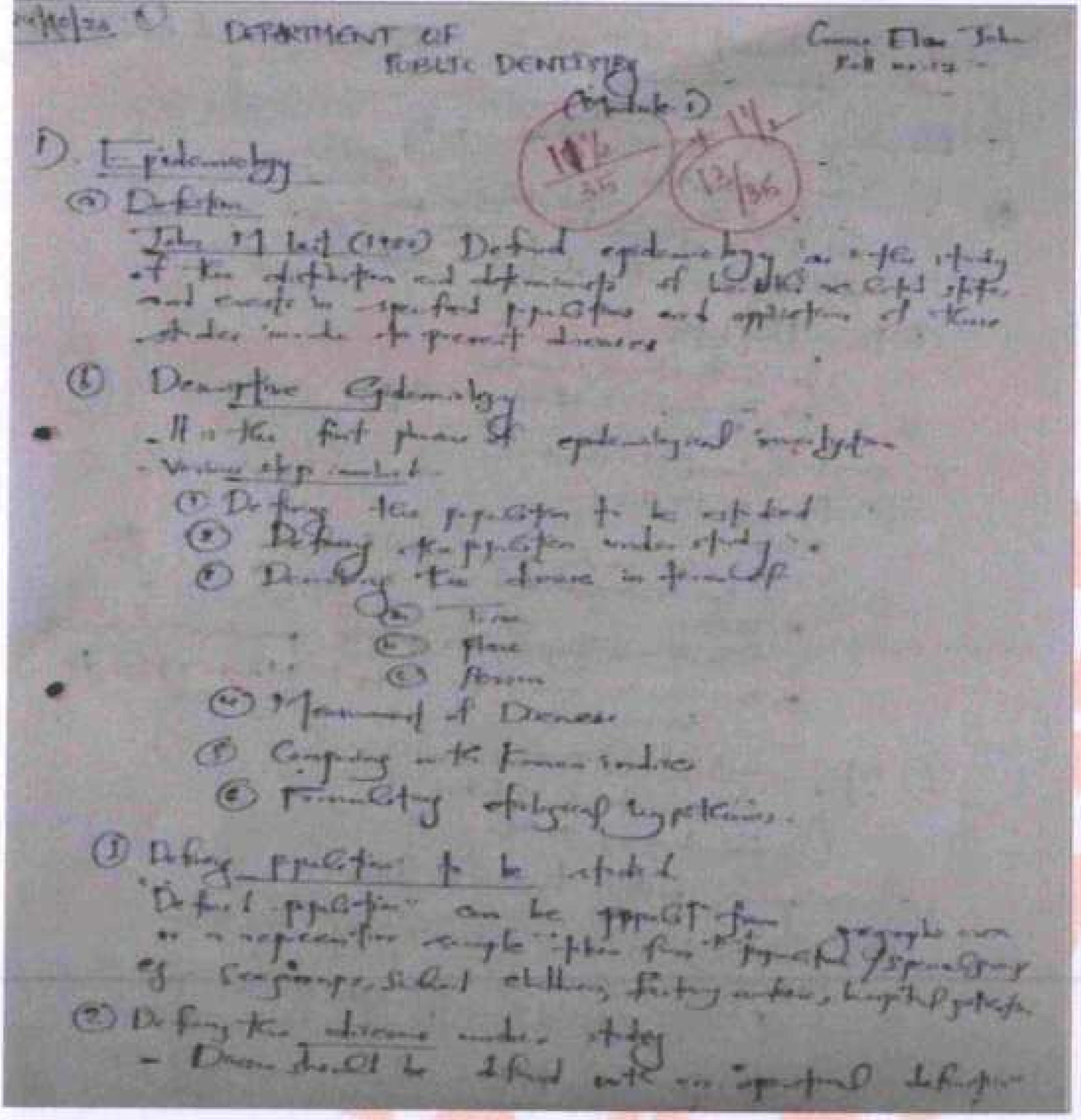
Periodical Assessment With Class Tests And Evaluation:

Various class tests were conducted for slow performers as module exams and were evaluated so that the student recognizes their mistakes and can be guided for scoring better. Answer presentation and structuring the answer as per the question were guided to the slow performers.



[illegible] ①

DEPARTMENT OF
PUBLIC DENTISTRY
(Module I)

Course Exam [illegible]
Roll no. [illegible]

11½/35 + 1½ 12/36

1). Epidemiology

a) Definition

John M Last (1988) Defined epidemiology as the study of the distribution and determinants of health related states and events in specified populations and application of these studies in order to prevent diseases

b) Descriptive Epidemiology

- It is the first phase of epidemiological investigation
- Various steps involved
  1) Defining the population to be studied
  2) Defining the population under study
  3) Describing the disease in terms of
     a) Time
     b) Place
     c) Person
  4) Measurement of Disease
  5) Comparing with known indices
  6) Formulating etiological hypothesis.

1) Defining population to be studied

"Defined population" can be [illegible] from geographic area or a representative sample taken from a specified group eg [illegible], school children, factory workers, hospital patients.

2) Defining the disease under study

- Disease should be defined with an operational definition

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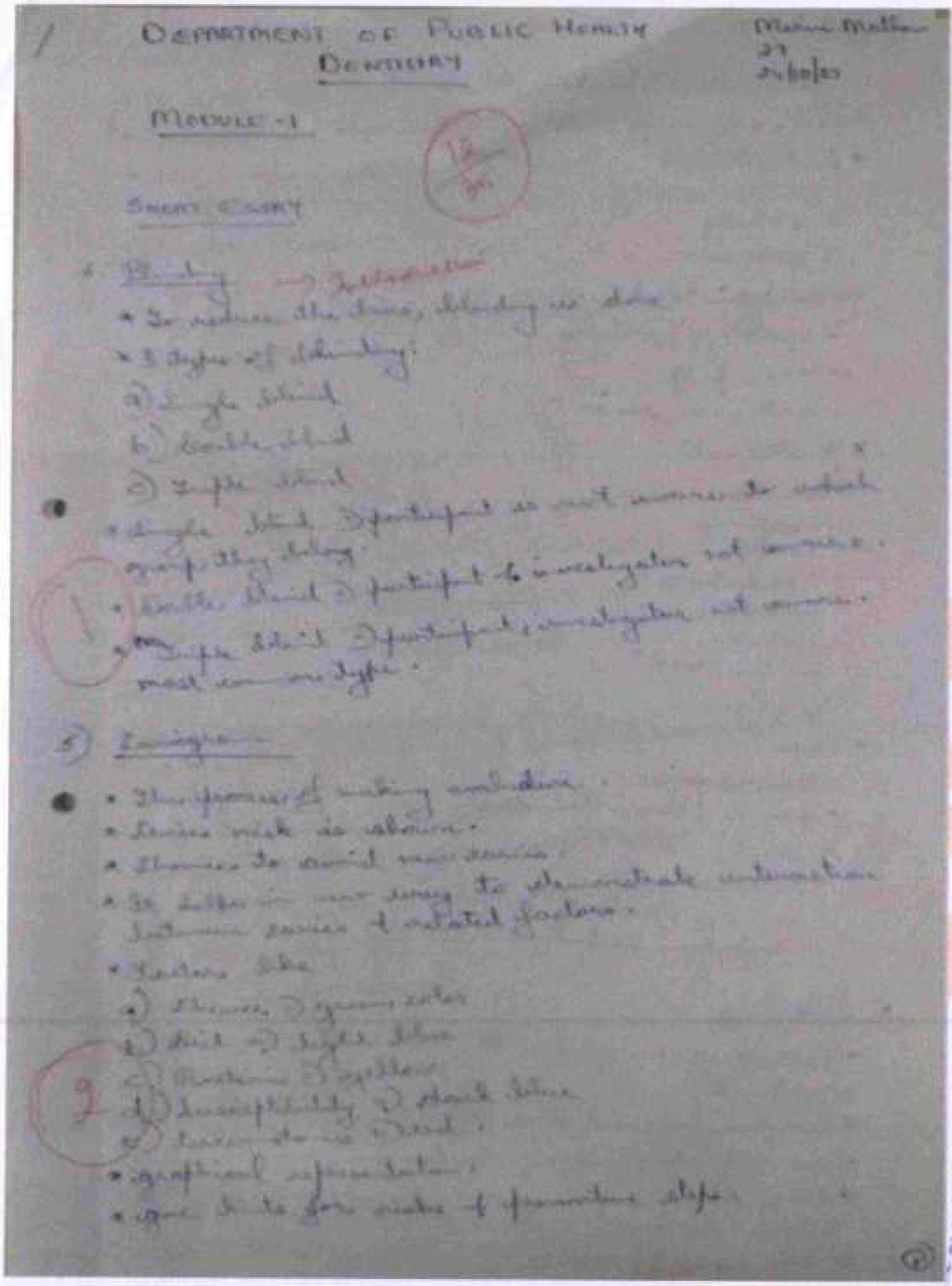

/ DEPARTMENT OF PUBLIC HEALTH DENTISTRY

Meenu Mathew
27
24/10/23

MODULE - 1

12/30

SHORT ESSAY

4. Blinding → [illegible]
- To reduce the bias, blinding is done
- 3 types of blinding:
  a) Single blind
  b) Double blind
  c) Triple blind
- Single blind → participant is not aware to which group they belong
- Double blind → participant & investigator not aware.
- Triple blind → participant, investigator, not aware. most common type.

1

5) Cariogram
- The process of making ... decision.
- Caries risk is shown.
- Chances to avoid new caries.
- It helps in new way to demonstrate interaction between caries & related factors.
- Factors like
  a) Chances → green color
  b) Diet → light blue
  c) Bacteria → yellow
  d) Susceptibility → dark blue
  e) Circumstances → Red.
- graphical representation.
- gives hints for areas of preventive steps.

2

②

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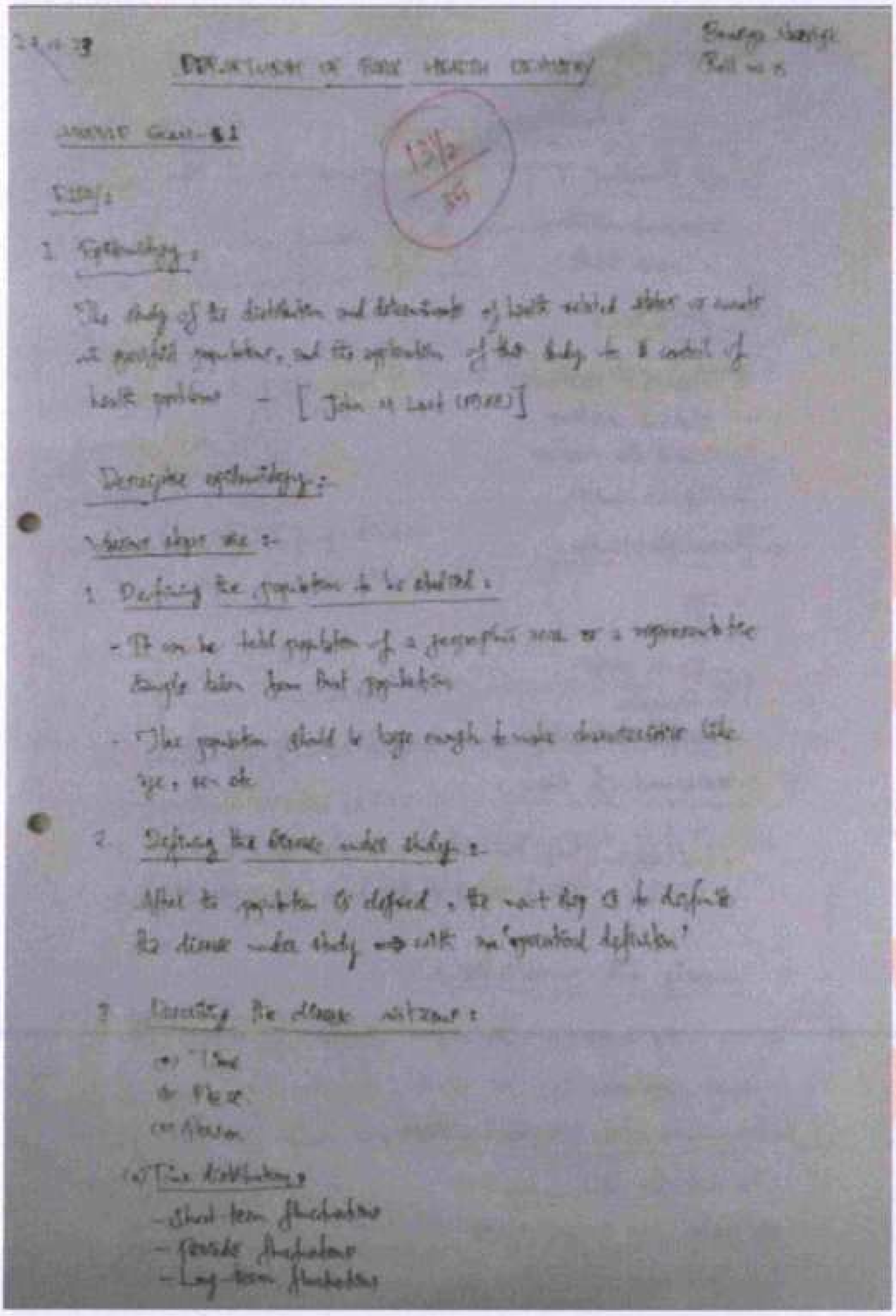

24.11.23

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

[illegible] - 1

Essay:

13½/25

1. Epidemiology:

The study of the distribution and determinants of health related states or events in specified populations, and the application of this study to the control of health problems – [John M Last (1988)]

Descriptive epidemiology:

Various steps are :-

1. Defining the population to be studied:

- It can be total population of a geographic area or a representative sample taken from that population
- The population should be large enough to make characteristics like age, sex etc

2. Defining the disease under study:

After the population is defined, the next step is to define the disease under study with an 'operational definition'

3. Describing the disease in terms of:

(a) Time
(b) Place
(c) Person

(a) Time distribution:

- Short-term fluctuations
- Periodic fluctuations
- Long-term fluctuations

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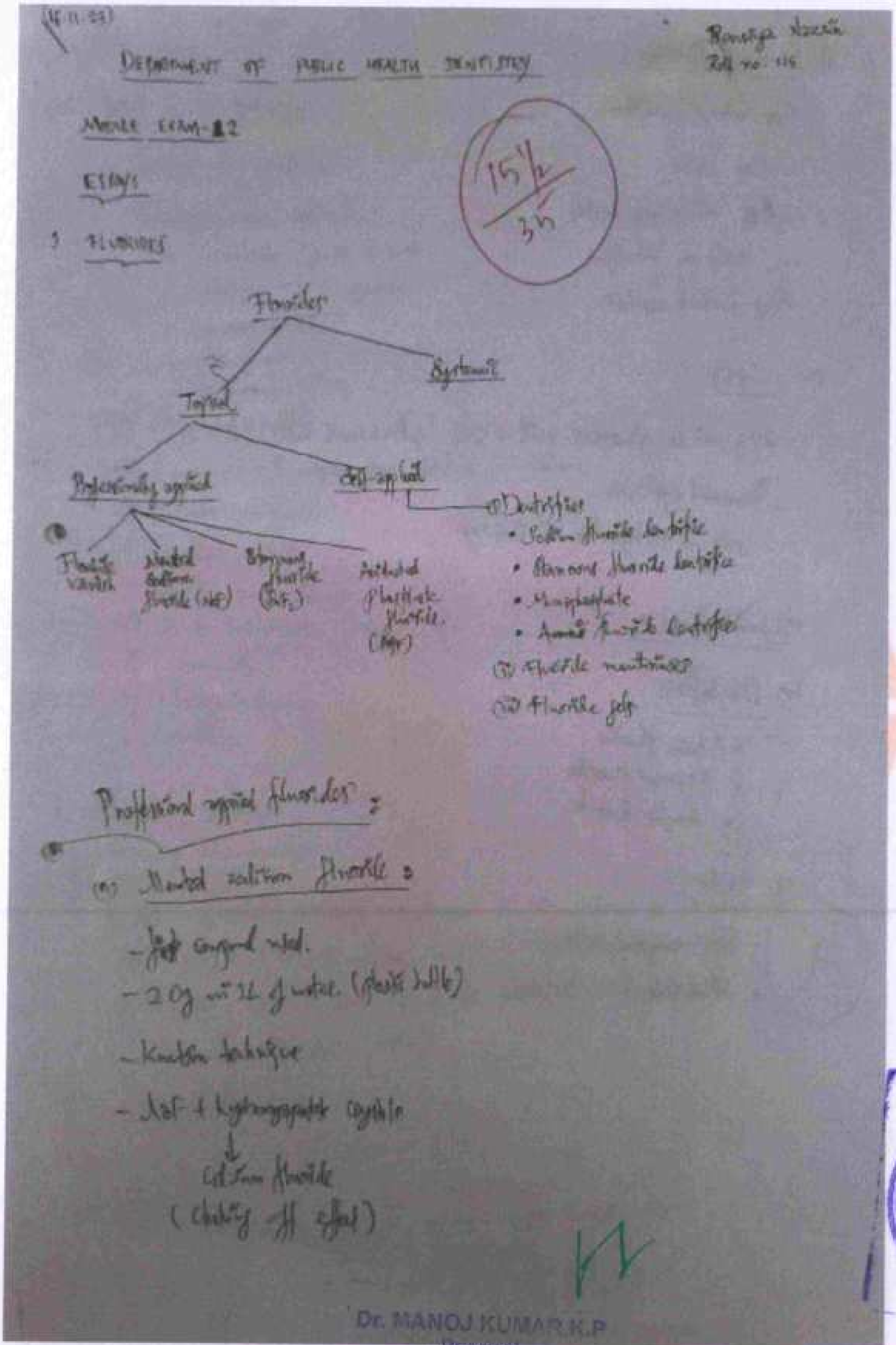

(16.11.23)

Ronsiya Nasrin
Roll no: 116

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

MODEL EXAM-2

ESSAYS

1 FLUORIDES

15½/35

Fluorides

Topical

Systemic

Professionally applied

Self applied

Fluoride varnish

Neutral sodium fluoride (NaF)

Stannous fluoride (SnF_2)

Acidulated phosphate fluoride (APF)

(i) Dentifrices
- Sodium fluoride dentifrice
- Stannous fluoride dentifrice
- Monofluorophosphate
- Amine fluoride dentifrice

(ii) Fluoride mouthrinses

(iii) Fluoride gels

Professional applied fluorides :

(a) Neutral sodium fluoride :

- first compound used.
- 2g in 1L of water. (plastic bottle)
- Knutson technique
- NaF + hydroxyapatite crystals

↓

Calcium fluoride
(choking off effect)

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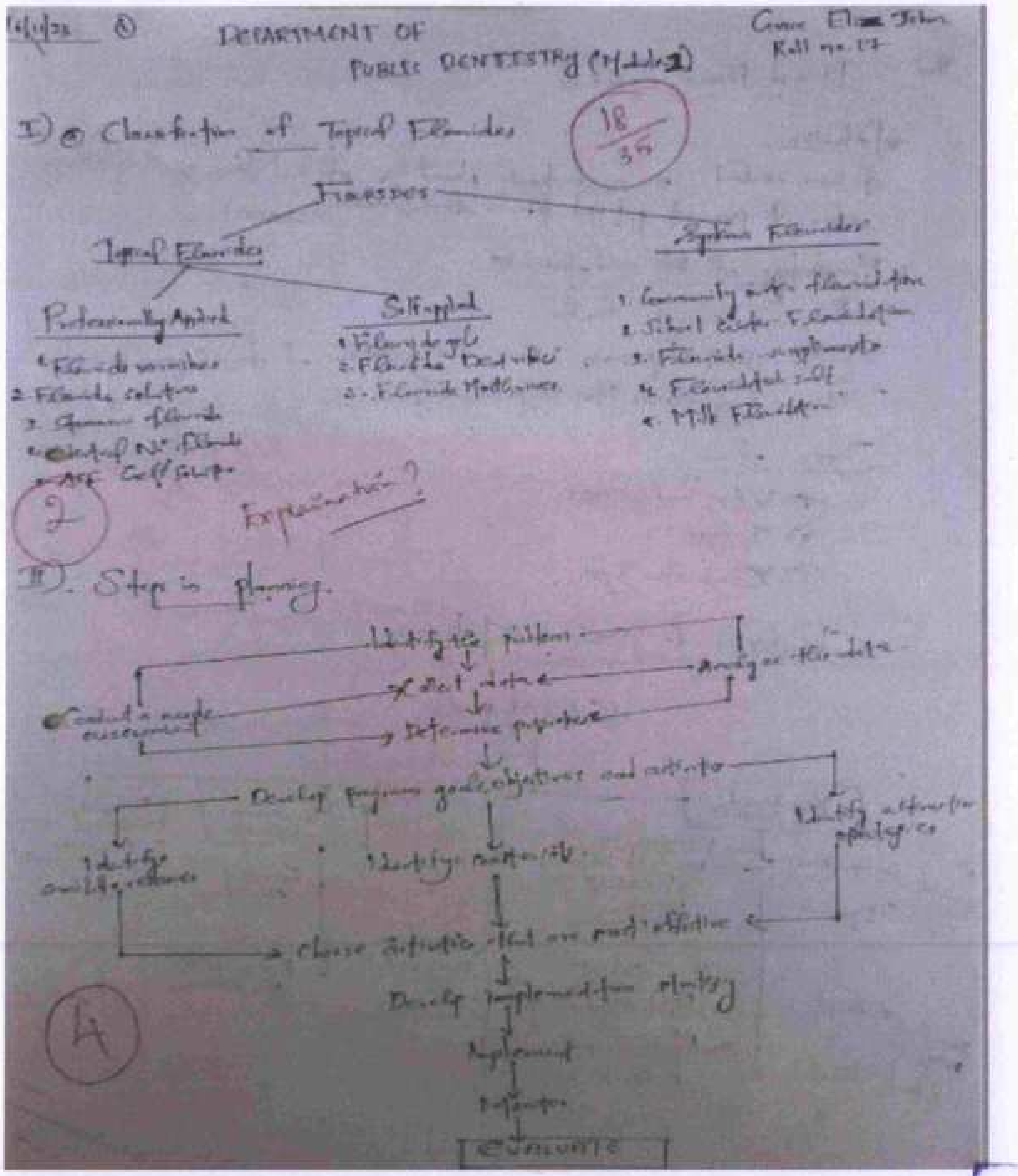

16/11/23 ① DEPARTMENT OF PUBLIC DENTISTRY (Module 2)

Grace Eliza John
Roll no. 17

18/35

I) ⓐ Classification of Topical Fluorides

FLUORIDES

Topical Fluorides

Systemic Fluorides

Professionally Applied
1. Fluoride varnishes
2. Fluoride solutions
3. Stannous fluoride
4. [illegible] Na⁺ fluoride
5. APF Gel/solution

Self applied
1. Fluoride gels
2. Fluoride Dentifrice
3. Fluoride Mouthrinses

1. Community water fluoridation
2. School water Fluoridation
3. Fluoride supplements
4. Fluoridated salt
5. Milk Fluoridation

2

Explanation?

II). Steps in planning.

Identify the problem
Collect data
Analyze the data
Conduct a needs assessment
Determine priorities
Develop program goals, objectives and activities
Identify alternative strategies
Identify available resources
Identify constraints
Choose activities that are most effective
Develop implementation strategy
Implement
Monitor
EVALUATE

4

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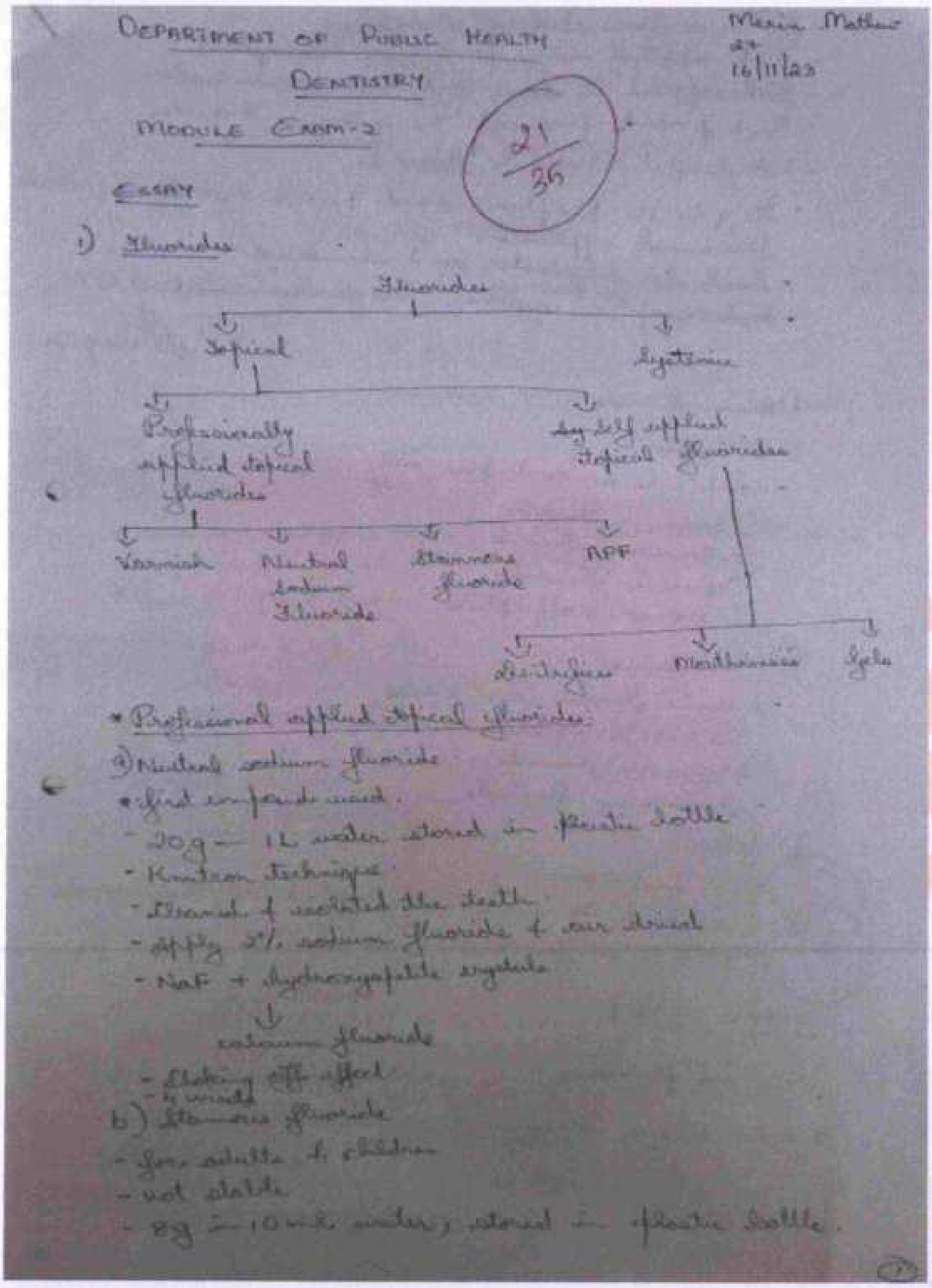

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

Merin Mathew
27
16/11/23

MODULE EXAM-2

21/35

ESSAY

1) Fluorides

Fluorides
Topical
Systemic
Professionally applied topical fluorides
~~Sy~~ Self applied topical fluorides
Varnish
Neutral sodium Fluoride
Stannous fluoride
APF
Dentifrices
Mouthrinses
Gels

* Professional applied topical fluorides:

a) Neutral sodium fluoride
- first compound used.
- 20g – 1L water stored in plastic bottle
- Knutson technique
- Cleaned & isolated the teeth
- Apply 2% sodium fluoride & air dried
- NaF + hydroxyapatite crystals

↓

calcium fluoride

- flaking off effect
- is weak

b) Stannous fluoride
- for adults & children
- not stable
- 8g – 10ml water, stored in plastic bottle.

7

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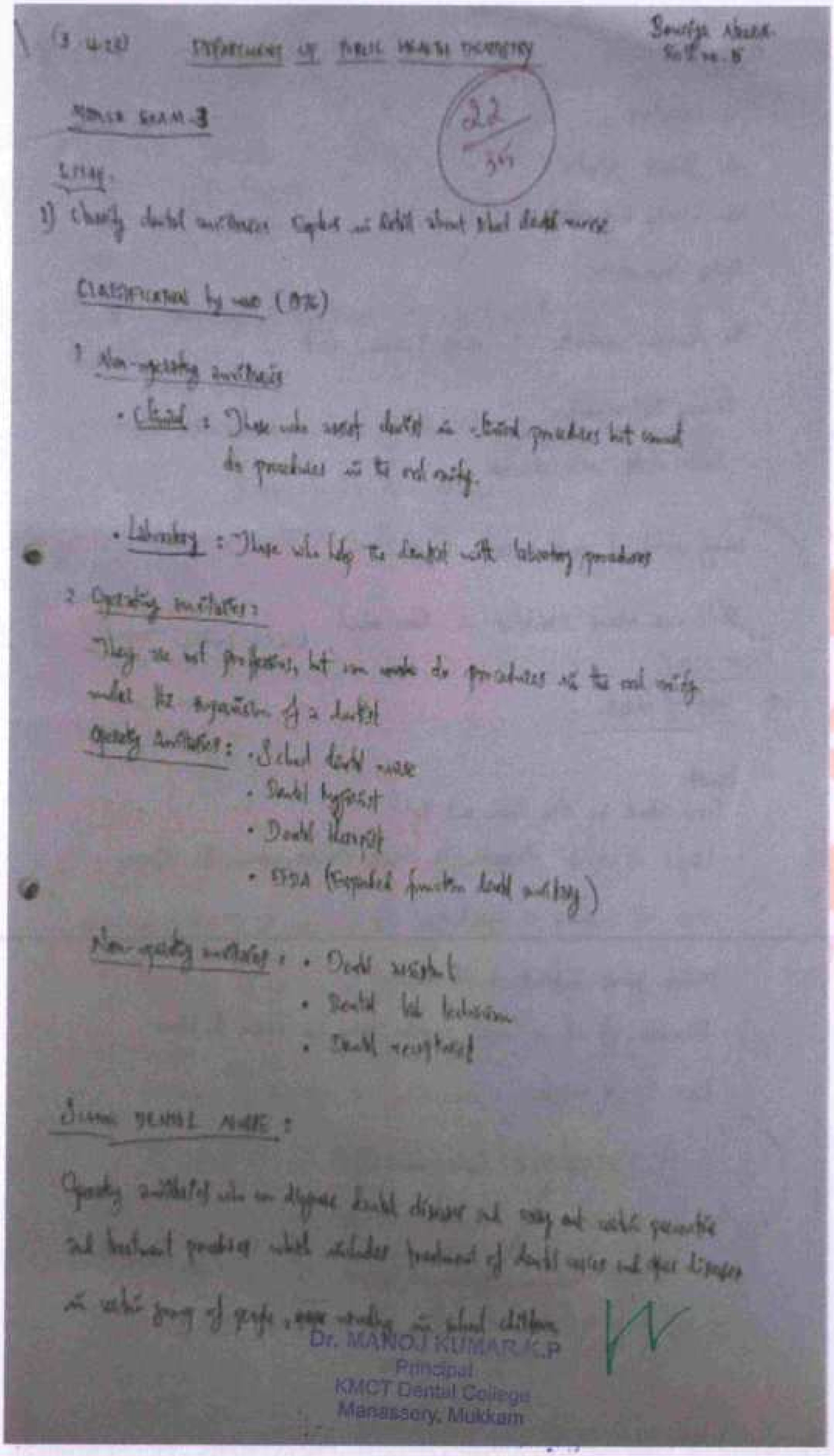

(3.4.23) DEPARTMENT OF PUBLIC HEALTH DENTISTRY

Soorya Nair
Roll no. 5

MODEL EXAM-3

22/35

Essay.

1) Classify dental auxiliaries. Explain in detail about school dental nurse

CLASSIFICATION by WHO ([illegible])

1. Non-operating auxiliaries
   - Clinical : Those who assist dentist in clinical procedures but cannot do procedures in the oral cavity.
   - Laboratory : Those who help the dentist with laboratory procedures

2. Operating auxiliaries :

They are not professionals, but can make do procedures in the oral cavity under the supervision of a dentist

Operating auxiliaries :
- School dental nurse
- Dental hygienist
- Dental therapist
- EFDA (Expanded function dental auxiliary)

Non-operating auxiliaries :
- Dental assistant
- Dental lab technician
- Dental receptionist

SCHOOL DENTAL NURSE :

Operating auxiliaries who can diagnose dental disease and carry out certain preventive and treatment procedures which includes treatment of dental caries and their disease in certain group of people, more mainly in school children

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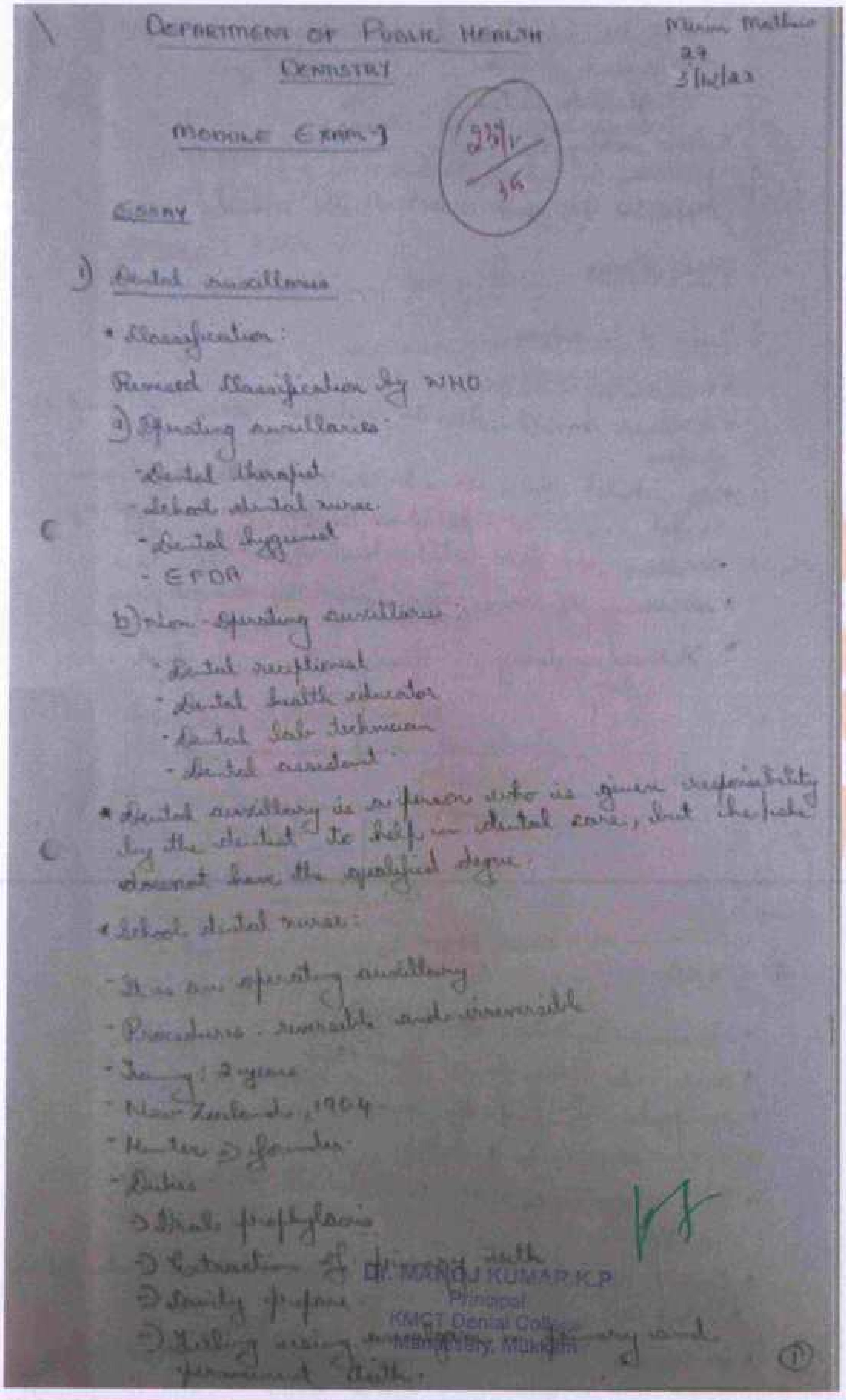

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

Merin Mathew
27
3/12/23

MODULE EXAM-3

23½
35

ESSAY

1) Dental auxiliaries

* Classification:

Revised Classification by WHO:

a) Operating auxiliaries:
- Dental therapist
- School dental nurse
- Dental hygienist
- EFDA

C

b) Non-operating auxiliaries:
- Dental receptionist
- Dental health educator
- Dental lab technician
- Dental assistant

* Dental auxiliary is a person who is given responsibility by the dentist to help in dental care, but he/she doesnot have the qualified degree

C

* School dental nurse:
- It is an operating auxiliary
- Procedures: reversible and irreversible
- Training: 2 years
- New Zealand, 1904
- Hunter ⇒ founder
- Duties
  - ⇒ Oral prophylaxis
  - ⇒ Extraction of primary teeth
  - ⇒ Cavity prepare
  - ⇒ Filling using amalgam in primary and permanent teeth.

①

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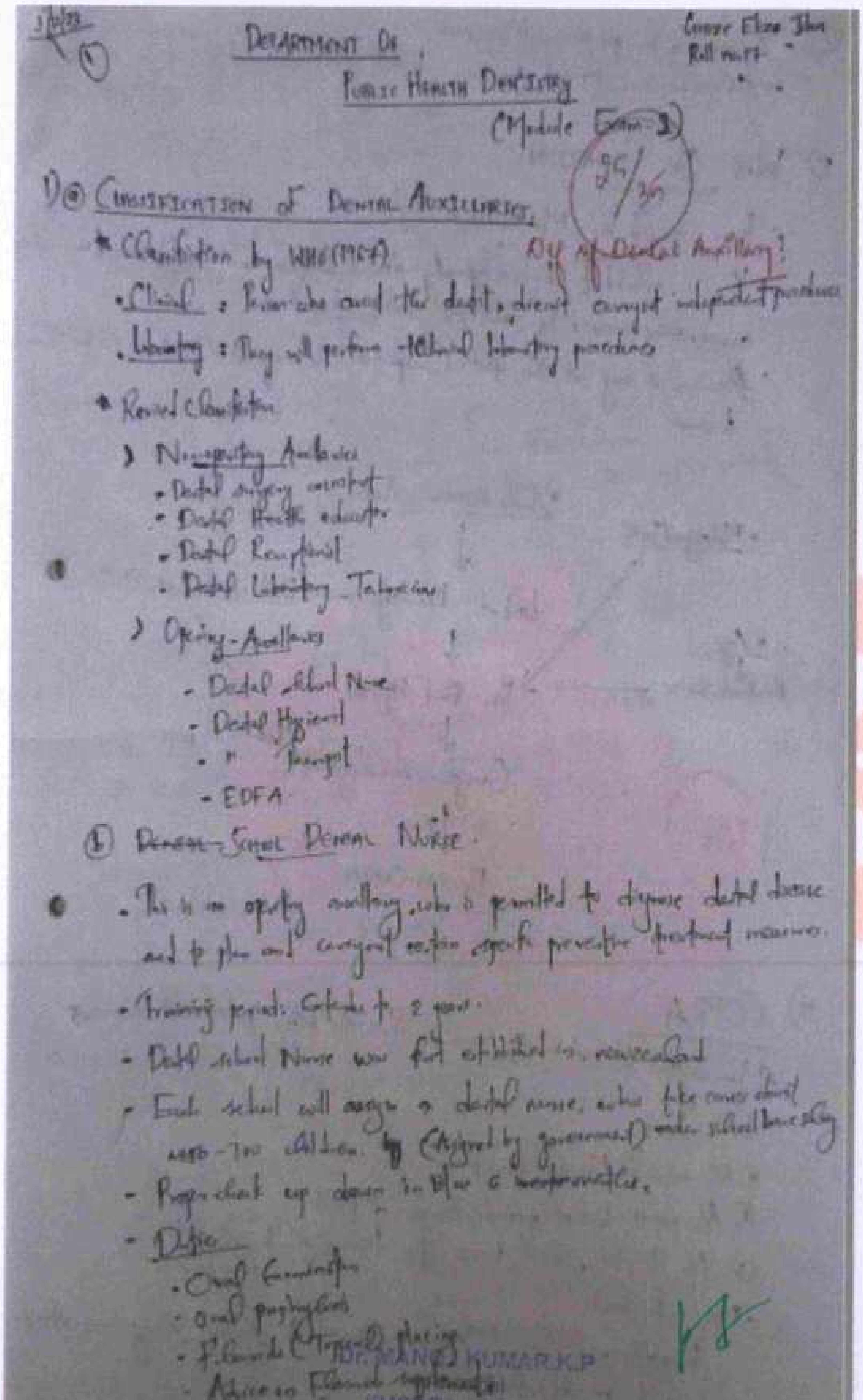

3/10/23
①

DEPARTMENT OF
PUBLIC HEALTH DENTISTRY
(Module Exam-3)

Grace Elsa John
Roll no 17

25/35

1) ⓐ CLASSIFICATION OF DENTAL AUXILLIARIES

Def of Dental Auxillary?

* Classification by WHO (1967)
  - Clinical : Person who assist the dentist, direct carryout independent procedures
  - Laboratory : They will perform technical laboratory procedures
* Revised Classification
  - Non-operating Auxiliaries
    - Dental surgery assistant
    - Dental Health educator
    - Dental Receptionist
    - Dental Laboratory Technician
  - Operating Auxiliaries
    - Dental School Nurse
    - Dental Hygienist
    - " Therapist
    - EDFA

ⓑ ~~Dental~~ School Dental Nurse.

- This is an operating auxillary, who is permitted to diagnose dental disease and to plan and carryout certain specific preventive treatment measures.
- Training period: Extended to 2 years.
- Dental school Nurse was first established in New Zealand
- Each school will assign a dental nurse, who take cares about ~~450~~-700 children ~~by~~ (Assigned by government) under school base [illegible]
- Proper check up done in interval 6 [illegible].
- Duties
  - Oral Examination
  - Oral prophylaxis
  - Fluoride (Topical) placing
  - Advice on Fluoride supplementation
  - Extraction of 1° [illegible]
  - Temporary Amalgam filling

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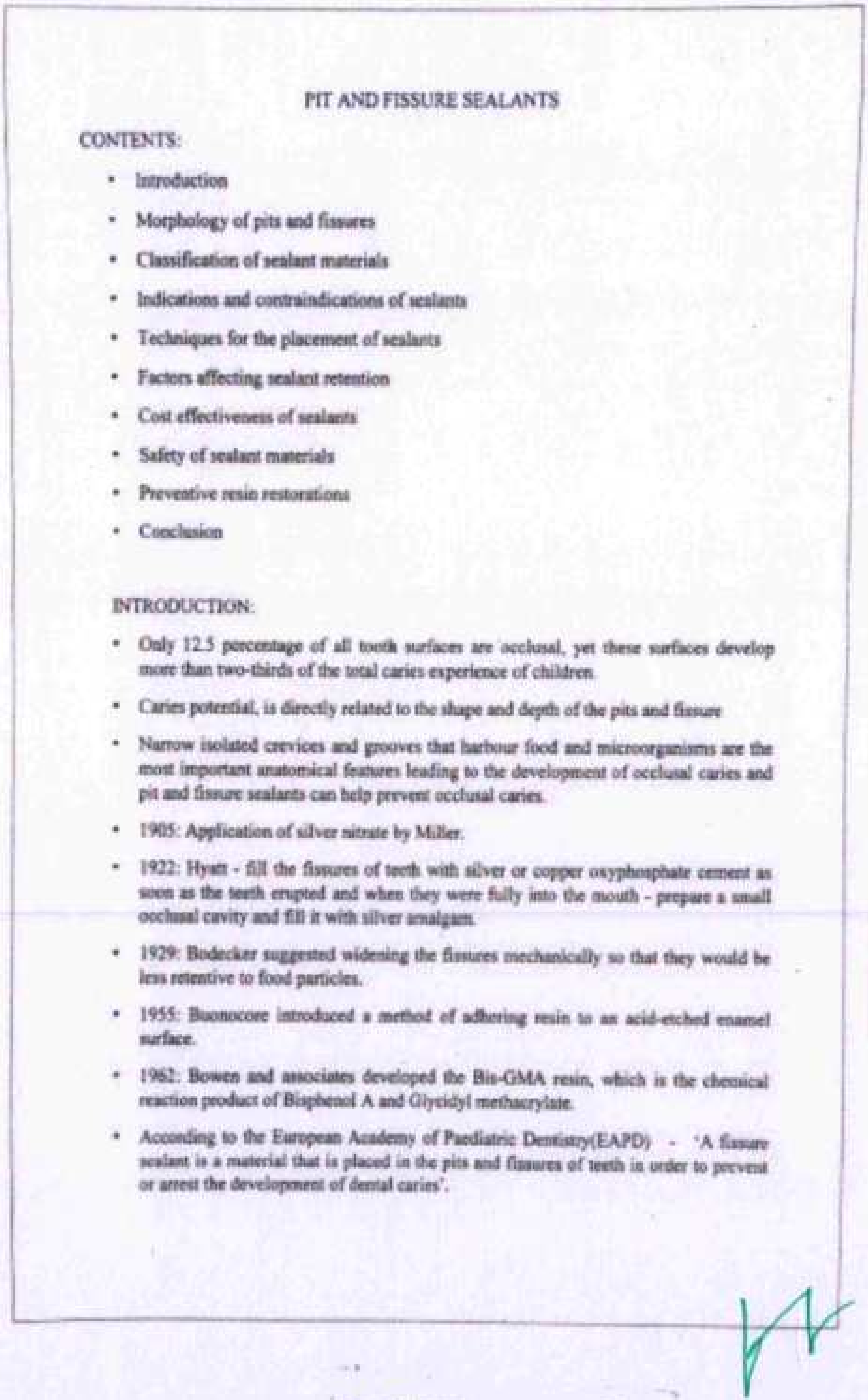
Kerala, S India

Provision Of Special Notes:

Short study materials were prepared for the slow performers for recalling the points better and to give an insight on the key points needed for answering the question in a content format.



PIT AND FISSURE SEALANTS

CONTENTS:

- Introduction
- Morphology of pits and fissures
- Classification of sealant materials
- Indications and contraindications of sealants
- Techniques for the placement of sealants
- Factors affecting sealant retention
- Cost effectiveness of sealants
- Safety of sealant materials
- Preventive resin restorations
- Conclusion

INTRODUCTION:

- Only 12.5 percentage of all tooth surfaces are occlusal, yet these surfaces develop more than two-thirds of the total caries experience of children.
- Caries potential, is directly related to the shape and depth of the pits and fissure
- Narrow isolated crevices and grooves that harbour food and microorganisms are the most important anatomical features leading to the development of occlusal caries and pit and fissure sealants can help prevent occlusal caries.
- 1905: Application of silver nitrate by Miller.
- 1922: Hyatt - fill the fissures of teeth with silver or copper oxyphosphate cement as soon as the teeth erupted and when they were fully into the mouth - prepare a small occlusal cavity and fill it with silver amalgam.
- 1929: Bodecker suggested widening the fissures mechanically so that they would be less retentive to food particles.
- 1955: Buonocore introduced a method of adhering resin to an acid-etched enamel surface.
- 1962: Bowen and associates developed the Bis-GMA resin, which is the chemical reaction product of Bisphenol A and Glycidyl methacrylate.
- According to the European Academy of Paediatric Dentistry(EAPD) - 'A fissure sealant is a material that is placed in the pits and fissures of teeth in order to prevent or arrest the development of dental caries'.

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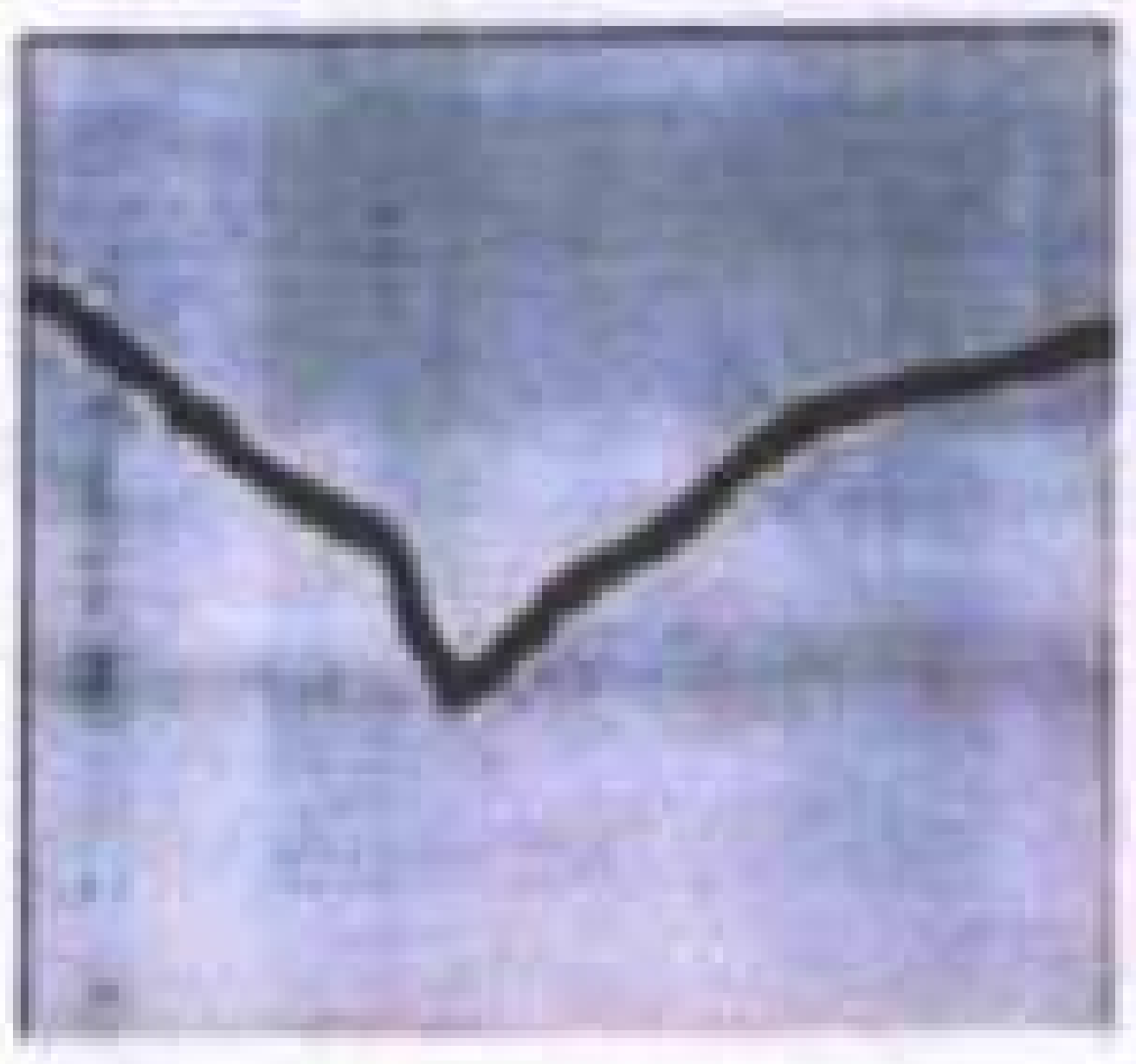
MORPHOLOGY OF PITS AND FISSURES

Types of fissures:

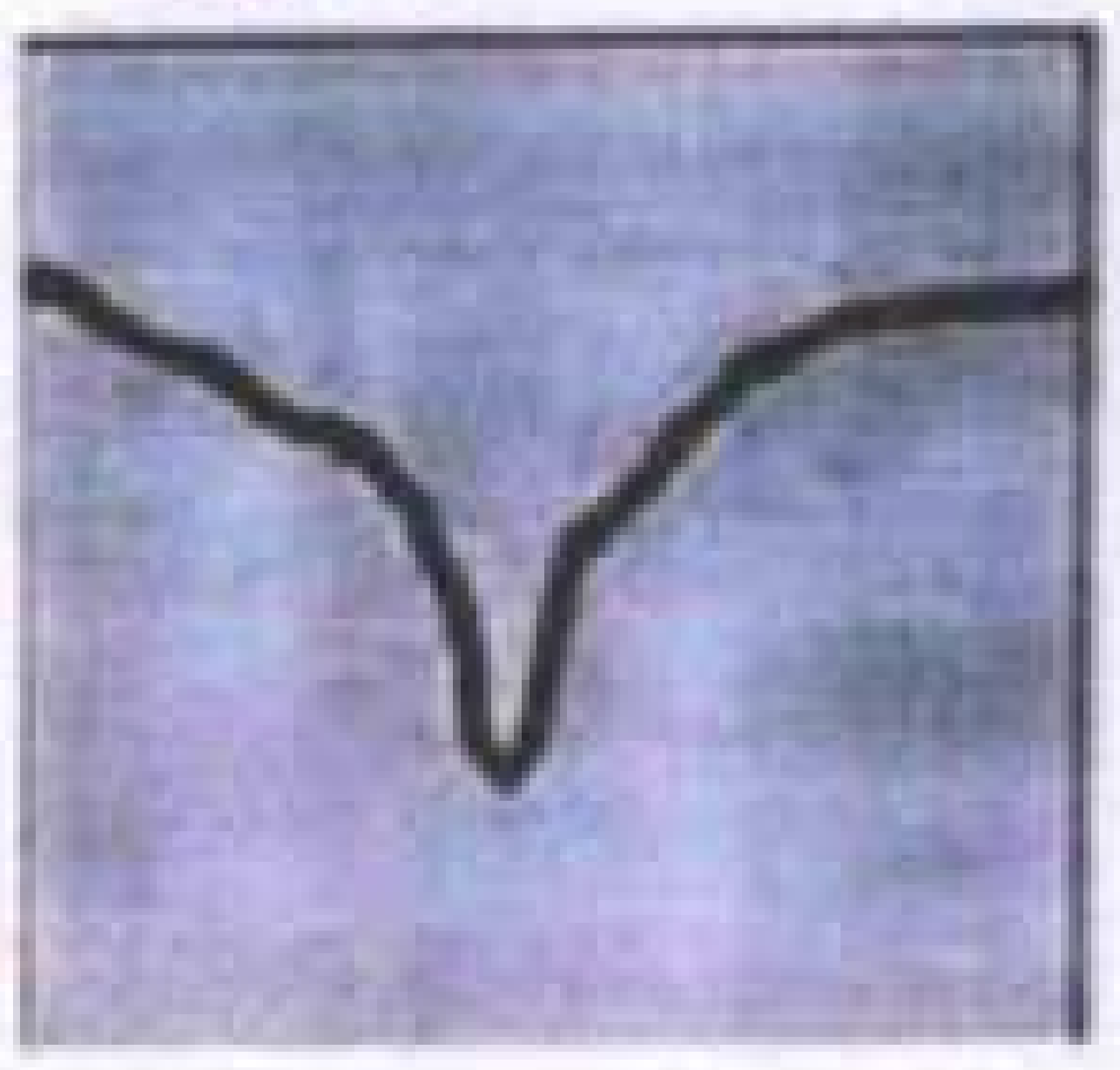
1. V type and U type:

- Are shallow and wide and tend to be self cleansing and somewhat caries resistant.
- Non invasive technique is recommended

v type

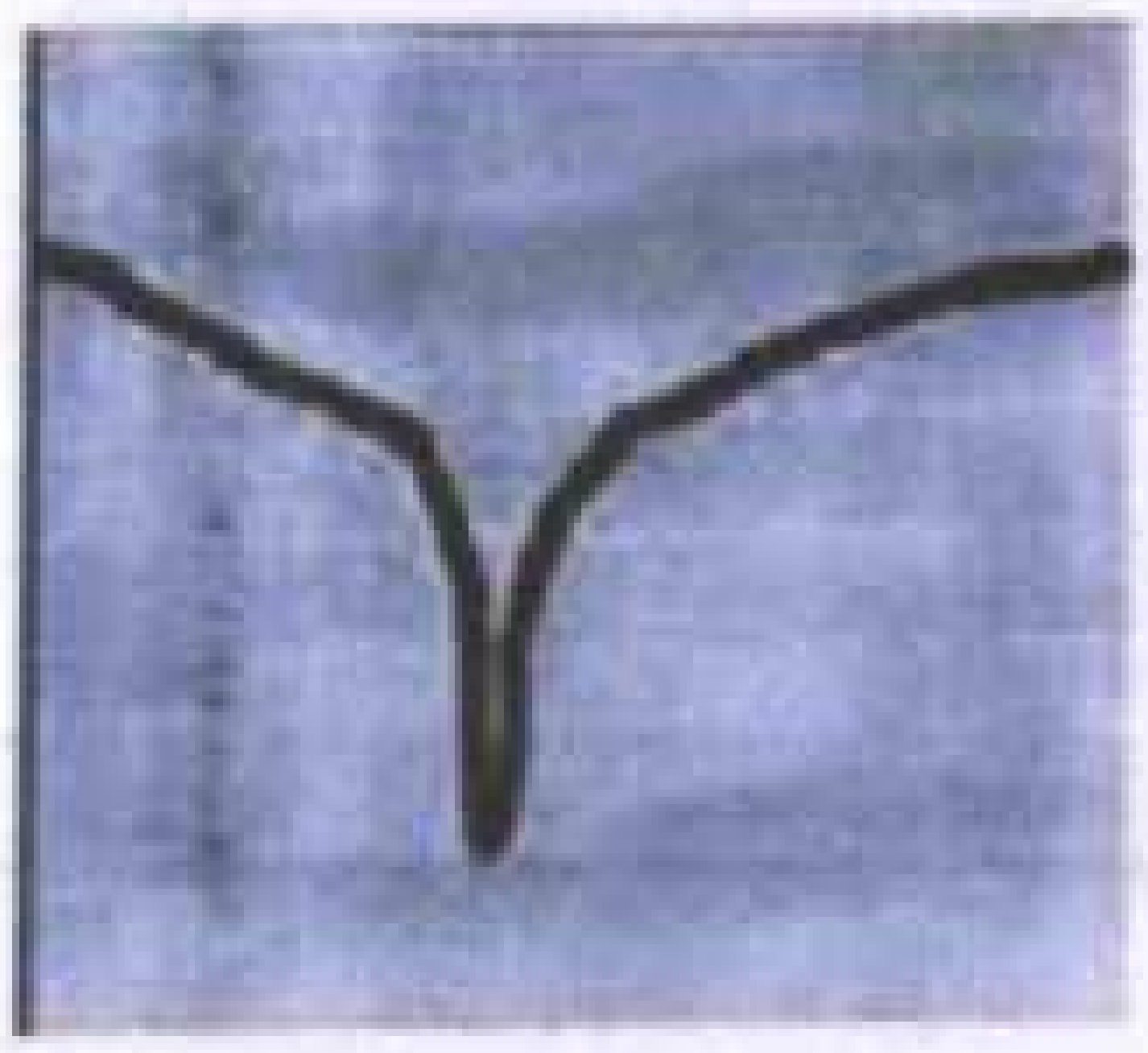


U type



2. I Type

- Is deep, narrow and quite constricted, resembling a bottle neck.
- Are caries susceptible.
- Requires invasive technique.



3. Combination types

CLASSIFICATION OF PIT AND FISSURE SEALANTS

Sealants are classified into three sealant materials:

I. Resin based sealants

II. Glass ionomer sealants

III. Polyacid-modified resin sealants

1. Resin based sealants:

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- Resin sealants are bonded to underlying enamel by use of acid-etch technique.
- Their caries preventive property is based on the establishment of a tight seal, which prevents leakage of nutrients to the micro flora in deeper parts of the fissure.
- I. Types of resin based pit and fissure sealants:
- A. Based on generation
- 1. Generation 1 Sealant:
- -Photocured via UV light of 350 nm but no longer used.
- 2. Generation 2 Sealant:
- -Auto or chemically-cured by adding tertiary amine activator to one component and mixing with another component.
- -Setting time is 1-2 minutes.
- 3. Generation 3 Sealant:
- -Photo cured via visible blue light of 470 nm.
- -Setting time is 10-20 seconds which is shorter and air bubble incorporation is eliminated.
- 4. Fluoride containing sealants:
- -Fluoride releasing particles are added to light polymerizing sealants but it does not provide long term fluoride release and there is no additional clinical benefit according to literature.
- B. Based on fillers:
- 1. Unfilled (penetration into fissures and retention is better than sealant with fillers)
- 2. Filled sealant (fillers increase abrasion resistance, bond strength). Fillers used are glass and quartz particles.
- C. Based on Colour
- 1. Clear: Aesthetic but difficult to detect in follow-up
- 2. Tinted/opaque sealant: Easy to detect.

II. Glass ionomer sealants:

- It bonds chemically to enamel and dentin through an acid-base reaction between an aqueous-based poly-acrylic acid solution and fluoro-aluminosilicate glass powder.
- It has high and low viscosity types and low viscosity type has poor physical properties and is outdated.
- High viscosity glass ionomer cement has better physical properties like flow and high fluoride release.

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- Resin-modified glass ionomer is also available and it has better physical characteristics compared to conventional GI sealants, less sensitive to water and a longer working time.
- But the main advantage of glass ionomer sealants is continuous fluoride release and it is not as hydrophobic as resin based sealants.

III. Polyacid-modified resin sealants:

- Also known as compomer and it combines advantageous properties of resin sealants and fluoride release property of glass ionomer sealants.
- It has better adhesion to enamel and dentin.
- Less water soluble compared to a GI sealant and less technique sensitive compared to resin based sealants.
- It should be noted that compomer and resin based sealants should be preferred over GI sealants wherever better moisture control is possible due to better retention and durability.
- Glass ionomer sealants are transitionally used wherever moisture control is not possible.

INDICATIONS AND CONTRAINDICATIONS OF SEALANTS

Surface diagnosis	**Do seal**	**Do not seal**
Carious	If pits and fissures are separated by transverse ridge, a sound pit or fissure may be sealed	Carious pits andfissure
Questionable	Sound	Carious
	Many occlusal lesions, few proximal lesions	Many proximal lesions
Sound	Deep, narrow pit and fissure	Broad, well coalesced pit and fissure
	Recently erupted teeth	Teeth caries free for 4 years or more
	Sound	Caries

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TECHNIQUES FOR THE PLACEMENT OF SEALANTS

1. Time to seal: Newly and completely erupted teeth.

2. Polish the tooth surface:

- Plaque and debris interfere with etching and sealant penetration and polishing can be done with a polishing cup and pumice.

3. Isolate and dry the tooth surface:

- It is a very important part and rubber dam is the best way but cotton rolls and saliva ejector can also be used.

4. Acid etching:

- Goal of etching is to produce an un-contaminated, dry, frosted surface and etching removes organic material, debris from surface.
- It produces micro-pores for sealant penetration.
- 35-37% phosphoric acid concentration is used and etching time has been reduced from 60 to 20 seconds.

5. Washing and drying:

- Rinsing time to wash away acid is 30 seconds and compressed air drying time is 15 seconds. Enamel should have a characteristic chalky, frosty appearance.

6. Isolate and dry the tooth:

- Salivary contamination should be prevented by rubber dam or cotton rolls and salivary ejector.

7. Bonding agents:

- Introduced in 1993 by Feigal et al.
- Bonding agents increases bond strength, reduces micro leakage and enhances flow of resin into fissures.
- Use of bonding agents also have a positive effect on increasing penetration and improving the retention rate.
- There are eight generations of bonding agents with 1 step self etch adhesive and 3 or 2 step etch and rinse adhesive.
- 8th generation has nano fillers for better mechanical properties.

8. Sealant placement and evaluation:

- The sealant material is then applied to the tooth according to the manufacturer's directions and polymerized. Be careful not to incorporate air bubbles in the material.

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- The sealant should be evaluated visually and tactically. Take the explorer and attempt to dislodge it.
- If there are any deficiencies in the material, more sealant material should be applied.

9. Check occlusion:

- Check for occlusal high points and if present correct them.

10. Follow-Up (Recall and repair):

- It is necessary to re-evaluate the sealants at recall visits.
- At these visits the integrity of the sealants are evaluated.
- If there has been any sealant loss, new sealant can be applied over the old material.
- Average sealant loss from permanent molars is 5-10% per year.

FACTORS AFFECTING SEALANT RETENTION

1. Type of sealants:

Studies have shown that the second generation sealants provide superior retention and caries protection than first generation sealants.

2. Position of teeth in the mouth:

Better sealant retention has been reported more for the anterior and in mandibular than maxillary arch.

3. Clinical skill of the operator:

More skilled and/or clinically experienced operators also produced better sealant retention.

4. Age of the child:

Retention is also compromised in younger children due to difficulties in maintaining a dry field resulting from behaviour Problems.

5. Eruption status of teeth:

Studies have shown that sealants placed on molars early in eruption were far more likely to require replacement within 3 years.

Sealants will be long-lasting if:

- The case is selected correctly.
- The tooth is selected correctly.
- An appropriate placement technique is Followed.
- Adequate maintenance is provided.

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COST EFFECTIVENESS OF PIT AND FISSURE SEALANTS

Cost of the treatment can be minimized by the following measures:-

1. Selective application on teeth with the greatest caries risk.
2. Delegating treatment to auxiliary personnel where legally permitted.
3. Selecting commercial products that have the highest proved success rates and are approved by statutory organizations.
4. Following meticulous application protocol.
5. Applying sealants in conjunction with optimal fluoride therapy.

SAFETY OF SEALANT MATERIALS

- Some dental resins can include trace amounts of BPA(bisphenol A) from resin production.
- BPA has possible adverse oestrogen like effects.
- So as a precaution it is advised to clean and rinse sealed surfaces after placement of sealants, to limit possible exposure to BPA.

PREVENTIVE RESIN RESTORATIONS

- They are a natural extension of the use of occlusal sealants.
- There are three types off-preventive resin restoration based on the extent & depth of carious lesion as determined by exploratory preparation.
- Simonsen (1978) has classified them as :

TYPE A

TYPE B

TYPE C

TYPE A:

- Suspicious pits &' fissures where cariesremoval is limited to enamel.
- Local anesthesia is not required.
- A slow speed ¼ or 1/2 round bur is used toremove decalcified enamel.
- Sealant is placed.

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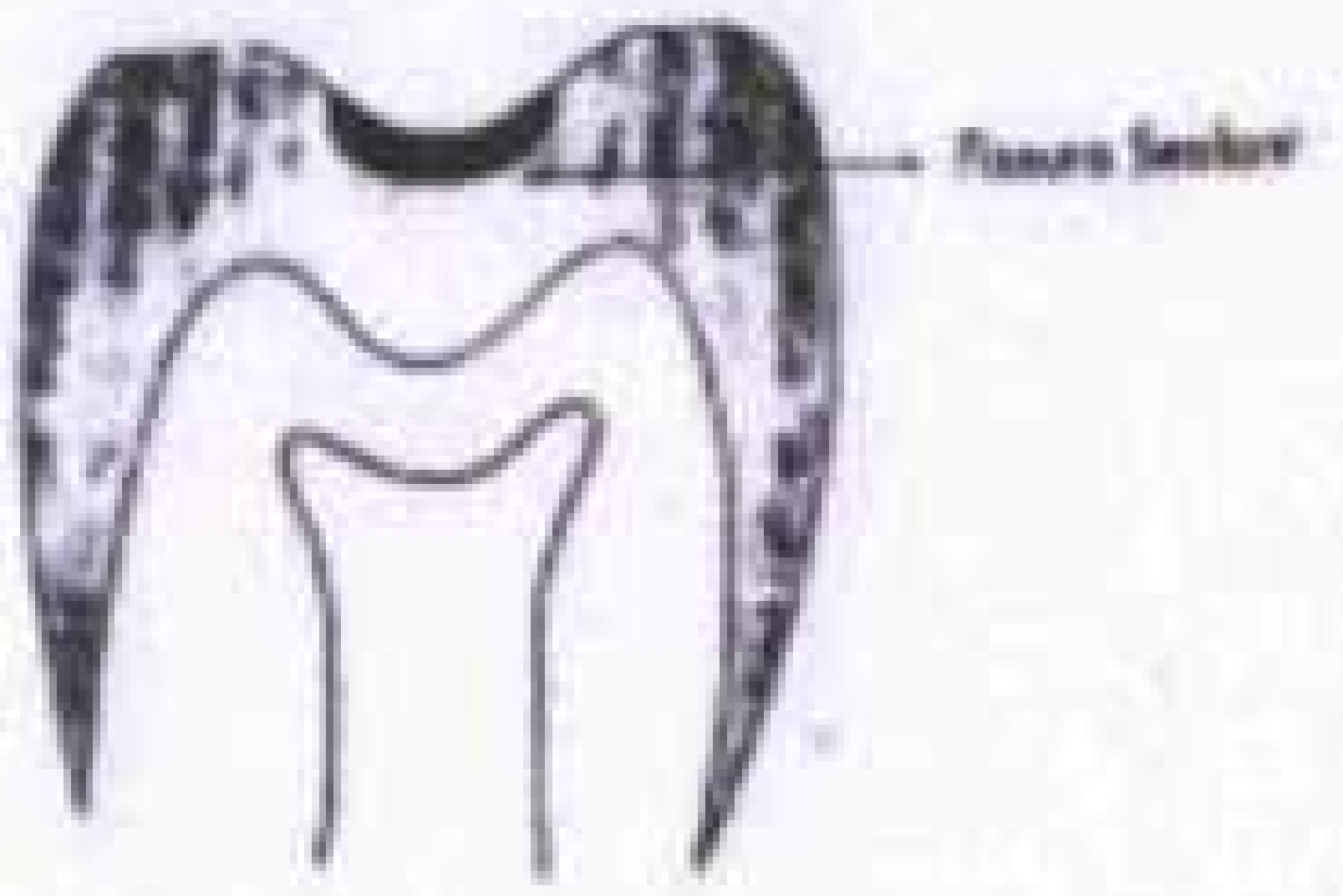
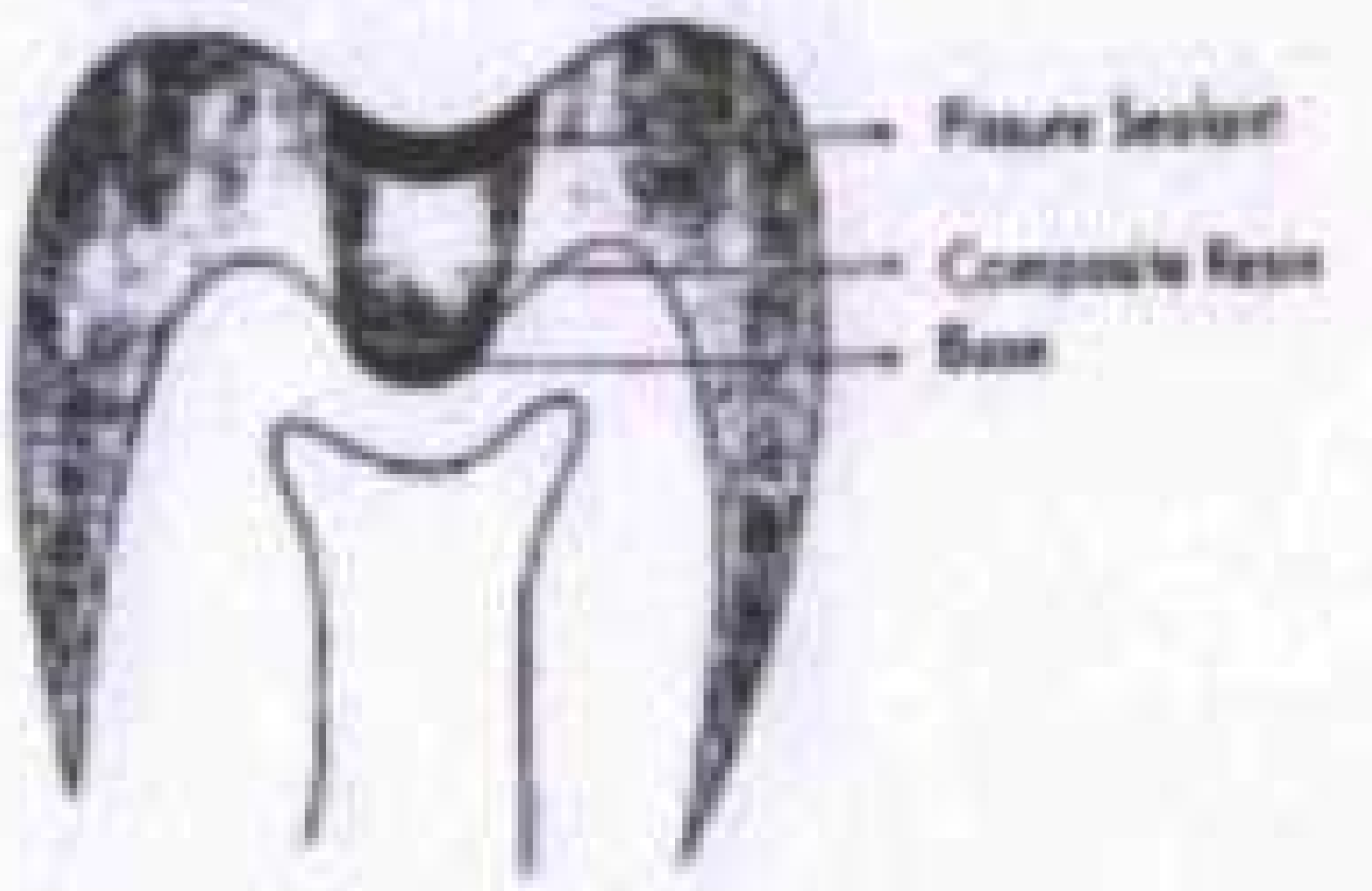


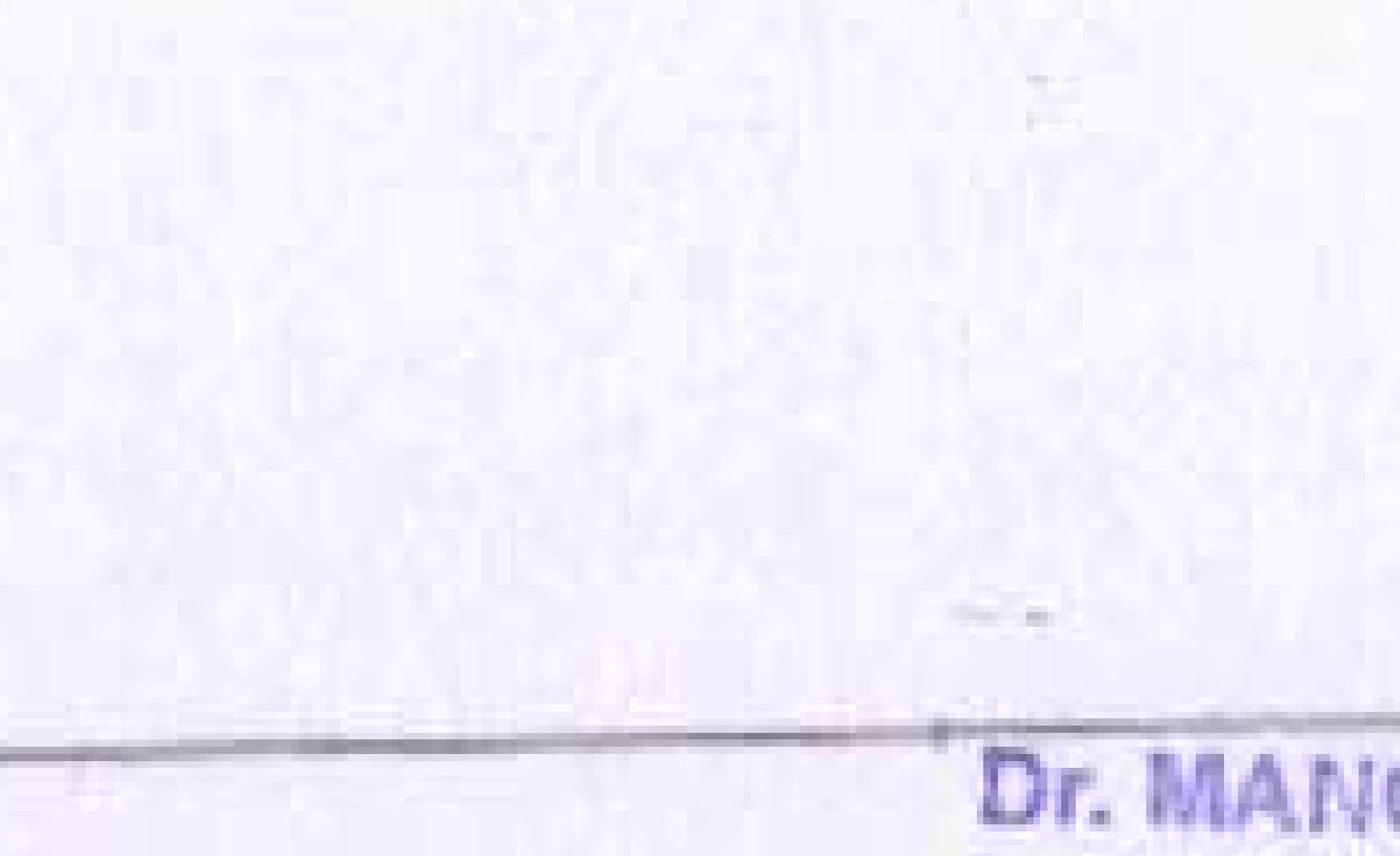
TYPE B:

- Incipient lesion in dentin that is small &confined.
- No local anesthesia is needed.
- An appropriate base is placed in areas ofdentin exposure, composite resin isplaced & the remaining pit & fissure arecovered with a sealant.



TYPE C:

- More extensive dentinal involvement &requires restorations with posterior composite material.
- Appropriate base is placed over dentin.
- Pits & fissures are covered with a sealant.
- Local anesthesia is required.



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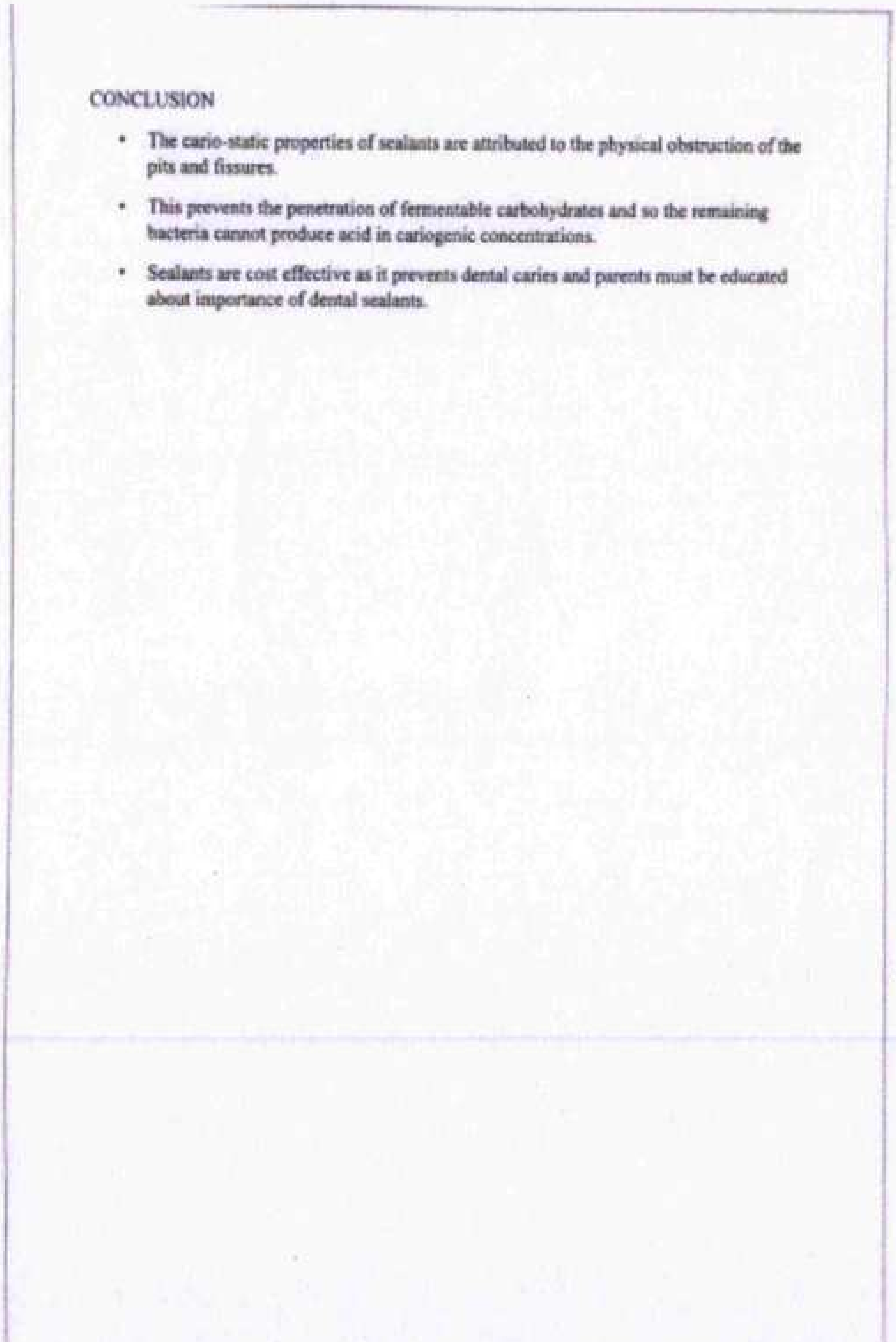

CONCLUSION

- The cario-static properties of sealants are attributed to the physical obstruction of the pits and fissures.
- This prevents the penetration of fermentable carbohydrates and so the remaining bacteria cannot produce acid in cariogenic concentrations.
- Sealants are cost effective as it prevents dental caries and parents must be educated about importance of dental sealants.

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DEPARTMENT OF CONSERVATIVE DENTISTRY AND ENDODONTICS

DETAILS OF SPECIAL PROGRAMS FOR ADVANCED LEARNERS

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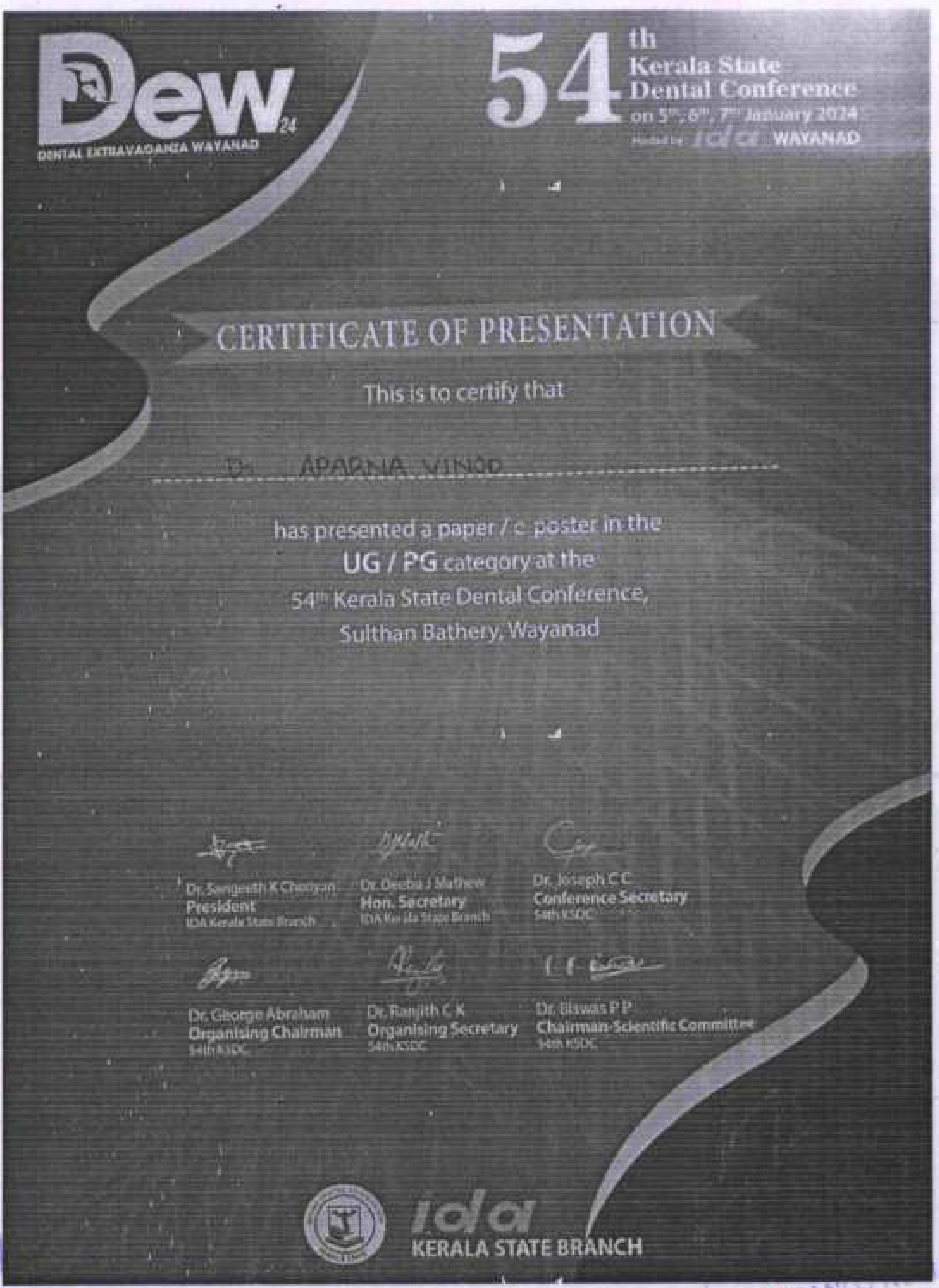
1. SCIENTIFIC PRESENTATIONS, UG CONFBRENCES AND WORKSHOPS

Scientific presentations, undergraduate conferences, and workshops are integral parts of academic growth and development. They provide students with opportunities to share their research, engage with peers and experts, and gain valuable feedback to improve their work.



Dew24
DENTAL EXTRAVAGANZA WAYANAD

54th Kerala State Dental Conference
on 5th, 6th, 7th January 2024
Hosted by ida WAYANAD

CERTIFICATE OF PRESENTATION

This is to certify that

Dr. APARNA VINOD

has presented a paper / e poster in the
UG / PG category at the
54th Kerala State Dental Conference,
Sulthan Bathery, Wayanad

Dr. Sangeeth K Cheriyan
President
IDA Kerala State Branch

Dr. Deebu J Mathew
Hon. Secretary
IDA Kerala State Branch

Dr. Joseph C C
Conference Secretary
54th KSDC

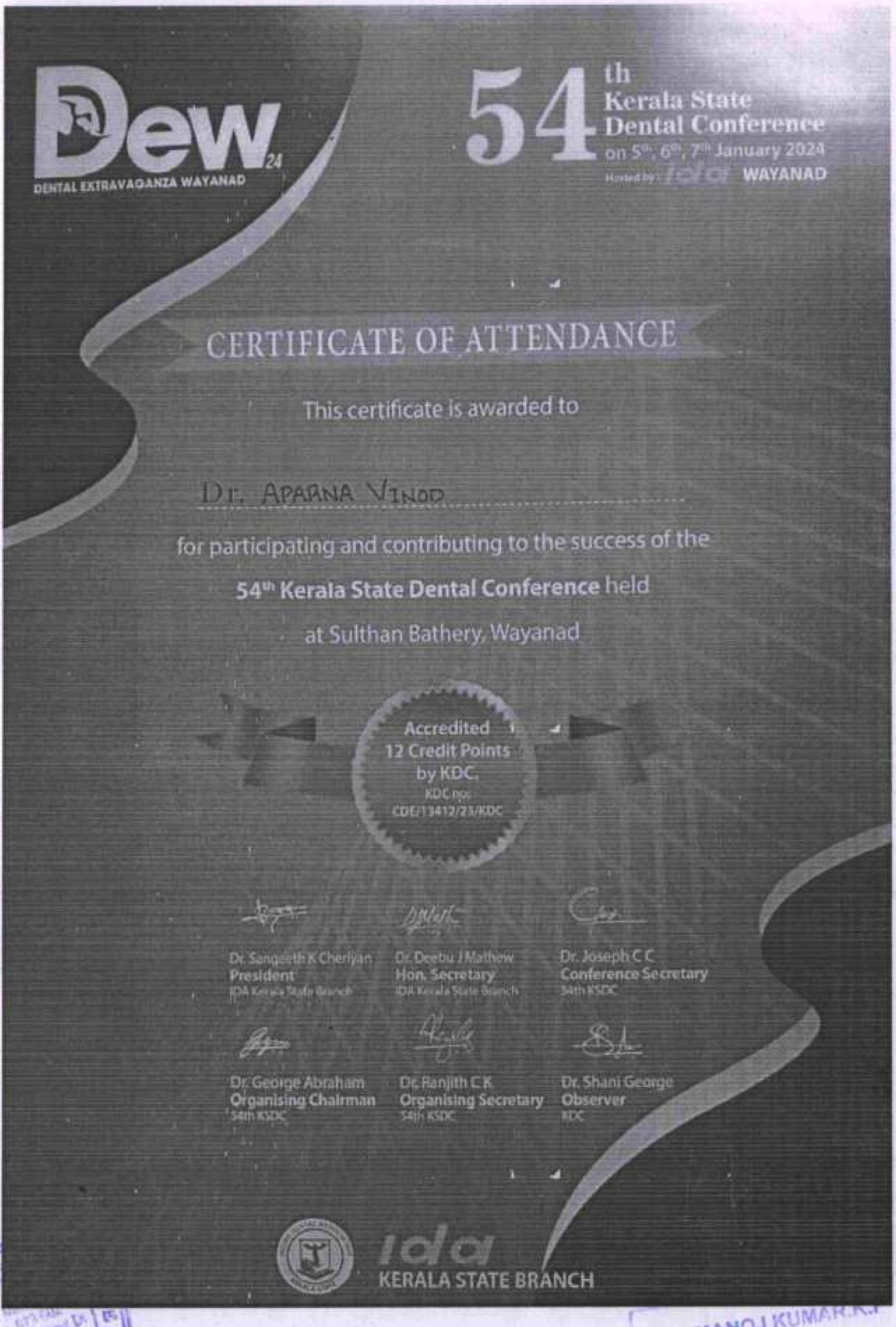
Dr. George Abraham
Organising Chairman
54th KSDC

Dr. Ranjith C K
Organising Secretary
54th KSDC

Dr. Biswas P P
Chairman-Scientific Committee
54th KSDC

ida
KERALA STATE BRANCH

Dr. MANOJ [illegible] AR.K.P
Principal
KMCT Dental College
Manassery, Mukkam



Dew 24
DENTAL EXTRAVAGANZA WAYANAD

54th Kerala State Dental Conference
on 5th, 6th, 7th January 2024
Hosted by: ida WAYANAD

CERTIFICATE OF ATTENDANCE

This certificate is awarded to

Dr. APARNA VINOD

for participating and contributing to the success of the **54th Kerala State Dental Conference** held at Sulthan Bathery, Wayanad

Accredited
12 Credit Points
by KDC.
KDC no:
CDE/13412/23/KDC

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President
IDA Kerala State Branch

Dr. Deebu J Mathew
Hon. Secretary
IDA Kerala State Branch

Dr. Joseph C C
Conference Secretary
54th KSDC

Dr. George Abraham
Organising Chairman
54th KSDC

Dr. Ranjith C K
Organising Secretary
54th KSDC

Dr. Shani George
Observer
KDC

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Principal
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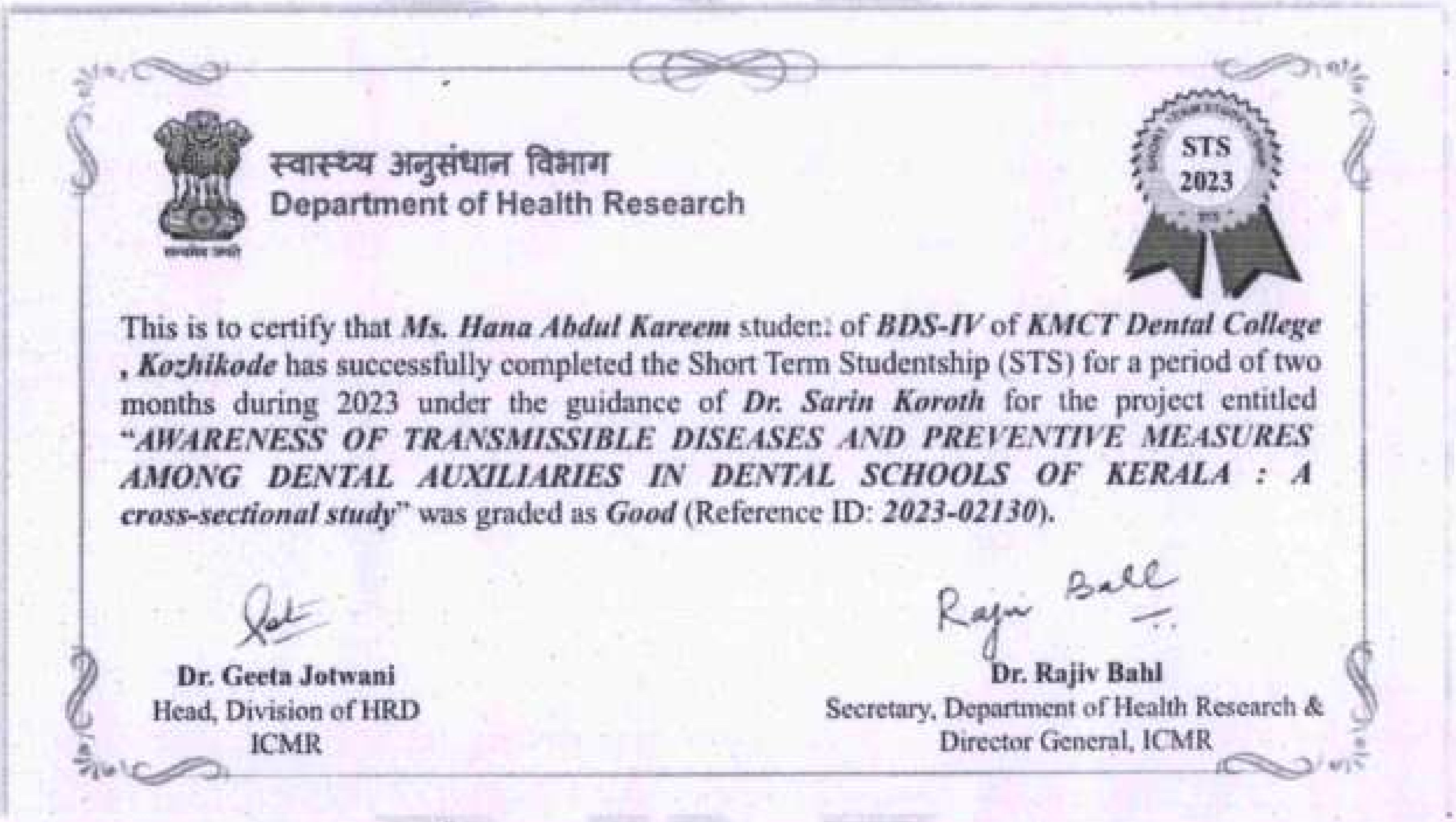
2. PARTICIPATION IN RESEARCH PROJECTS AND PUBLICATIONS

Participating in research projects and publishing research findings are two of the most important aspects of academic and professional development. They help individuals gain hands-on experience, develop critical thinking skills, and contribute to the academic community.



स्वास्थ्य अनुसंधान विभाग
Department of Health Research

STS
2023

This is to certify that ***Ms. Hana Abdul Kareem*** student of ***BDS-IV*** of ***KMCT Dental College , Kozhikode*** has successfully completed the Short Term Studentship (STS) for a period of two months during 2023 under the guidance of ***Dr. Sarin Koroth*** for the project entitled "***AWARENESS OF TRANSMISSIBLE DISEASES AND PREVENTIVE MEASURES AMONG DENTAL AUXILIARIES IN DENTAL SCHOOLS OF KERALA : A cross-sectional study***" was graded as ***Good*** (Reference ID: ***2023-02130***).

Dr. Geeta Jotwani
Head, Division of HRD
ICMR

Rajiv Bahl
Dr. Rajiv Bahl
Secretary, Department of Health Research &
Director General, ICMR

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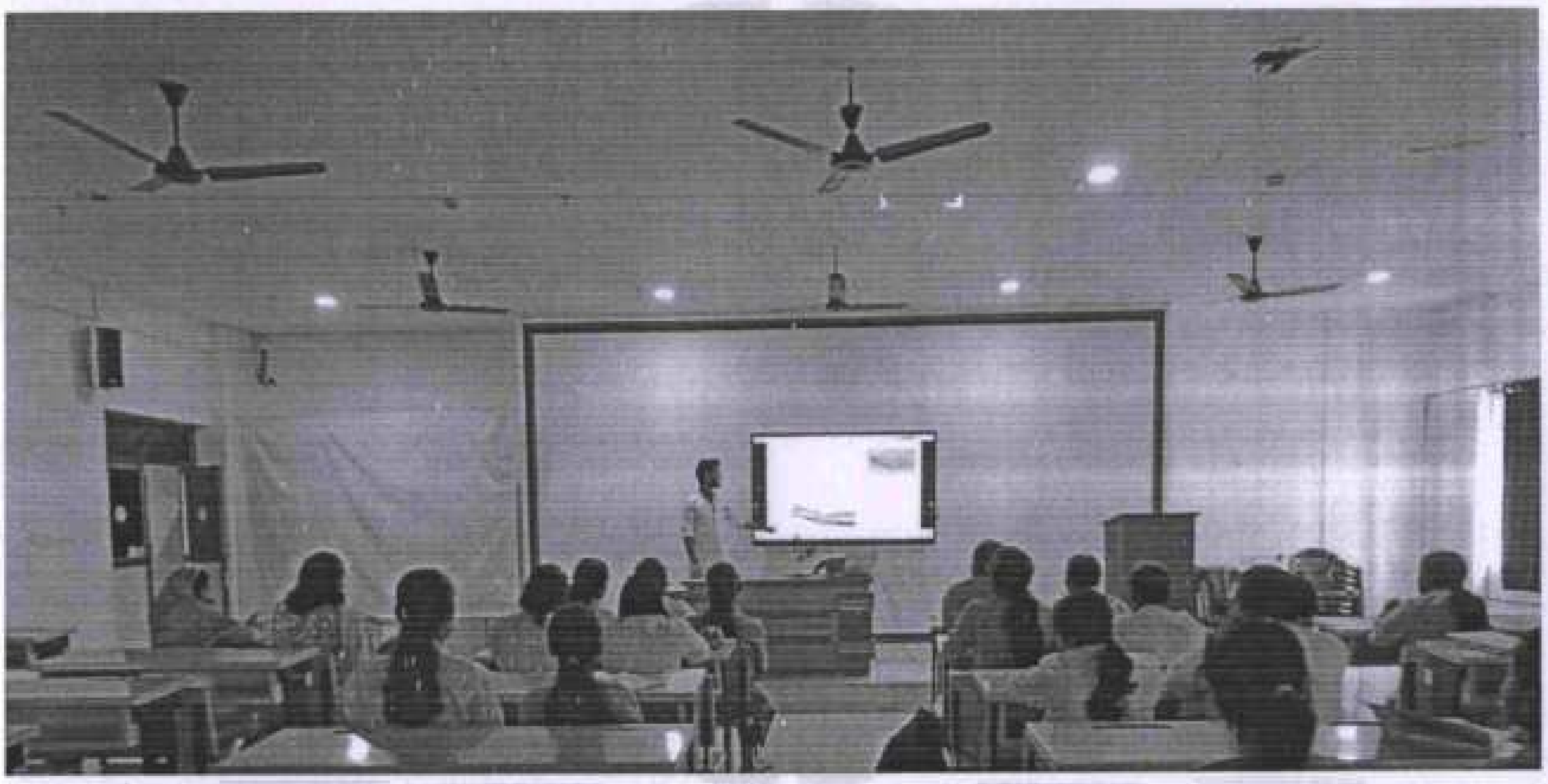
3. SEMINAR PRESENTATIONS

A seminar presentation is a structured session in which an individual or group shares knowledge, research findings, or ideas on a specific topic with an audience. It typically takes place in an academic or professional setting, where participants engage in discussions, ask questions, and exchange ideas.



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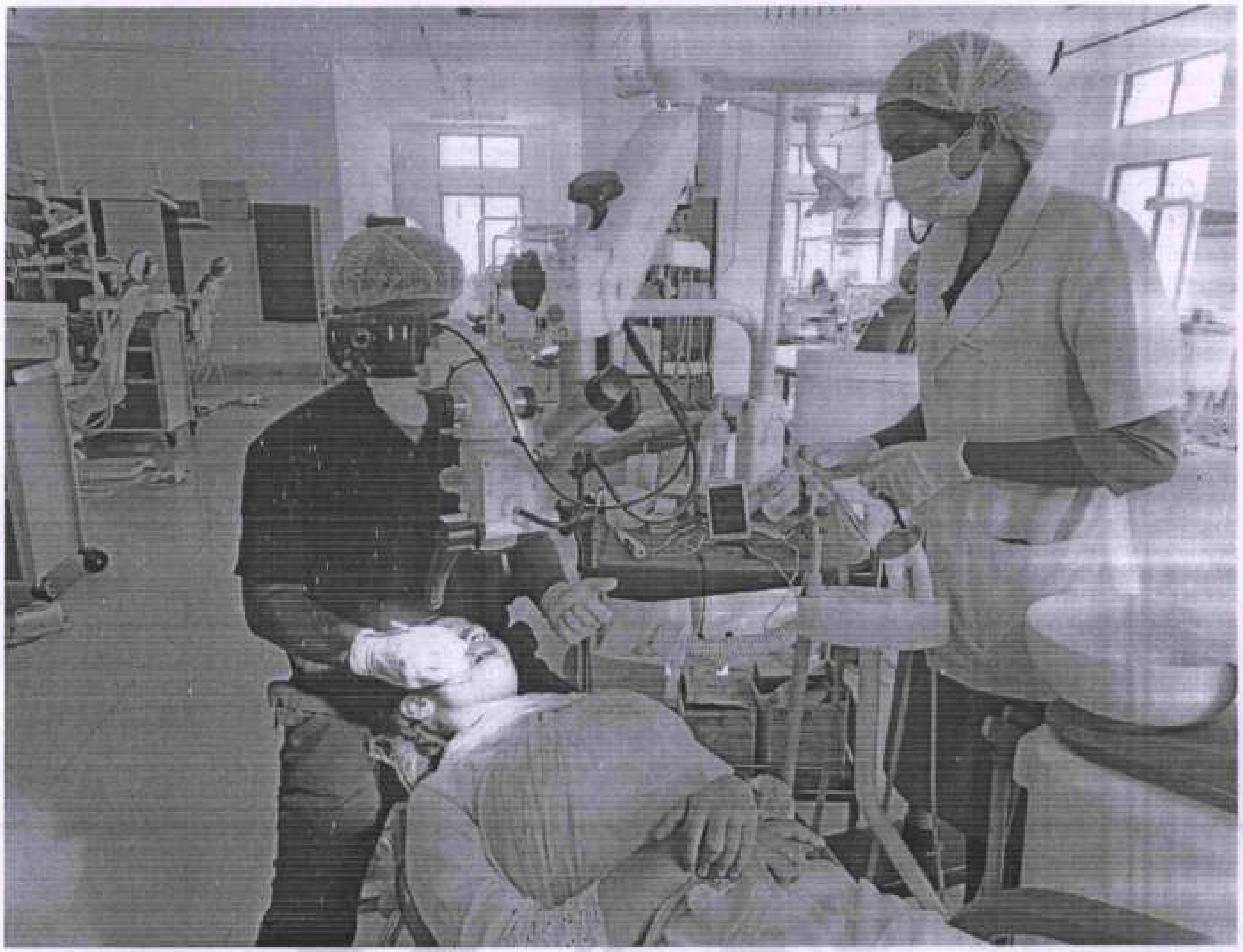
4. EXPOSURE TO COMPLEX CLINICAL SITUATION AND PROCEDURES

ADVANCED LEARNER ASSISTING MICROSCOPIC CASE OF POST GRADUATE STUDENT



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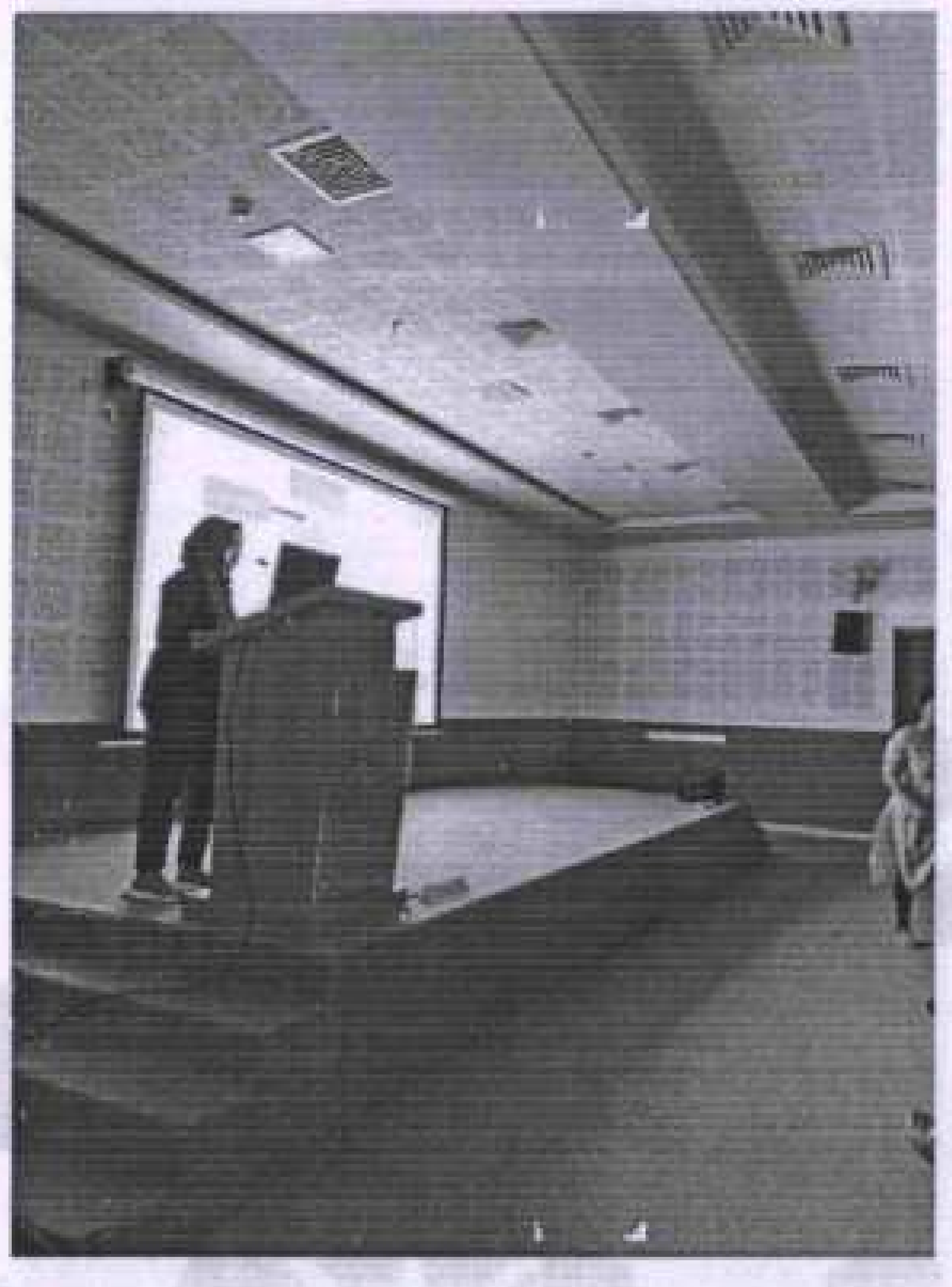
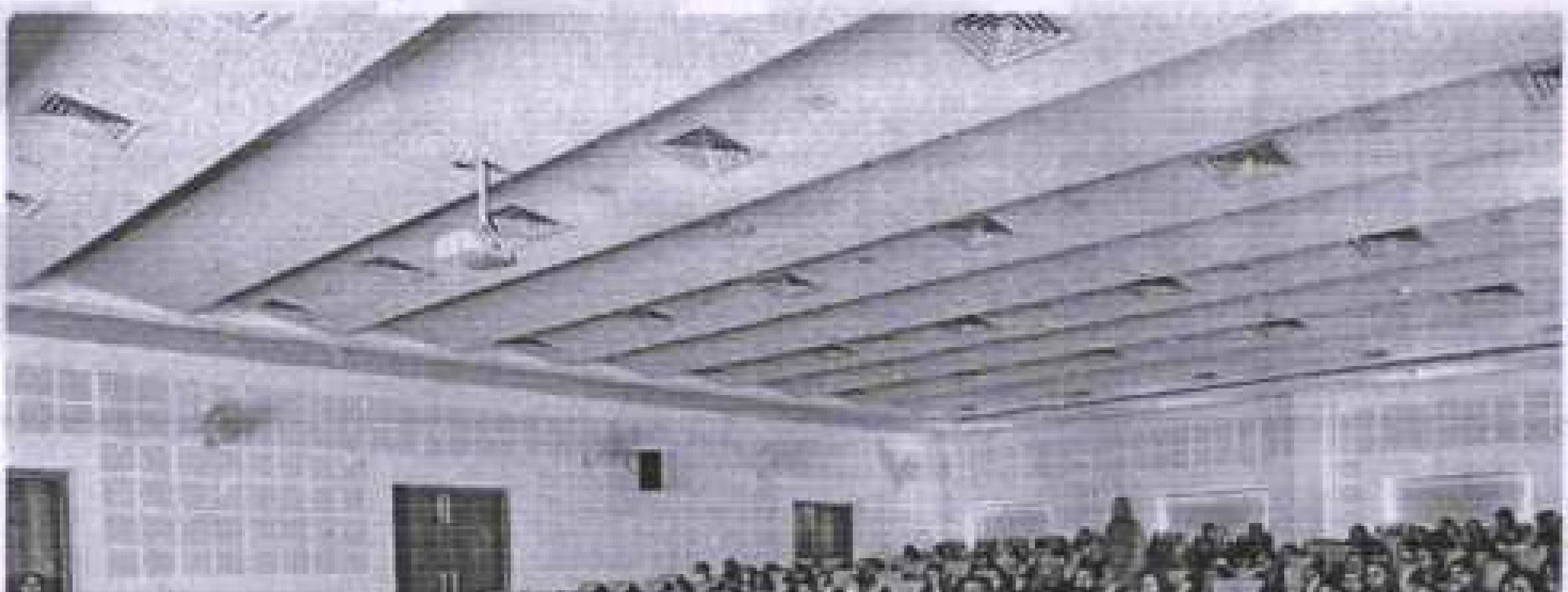
5. CLINICO PATHOLOGICAL CLUB PARTICIPATION





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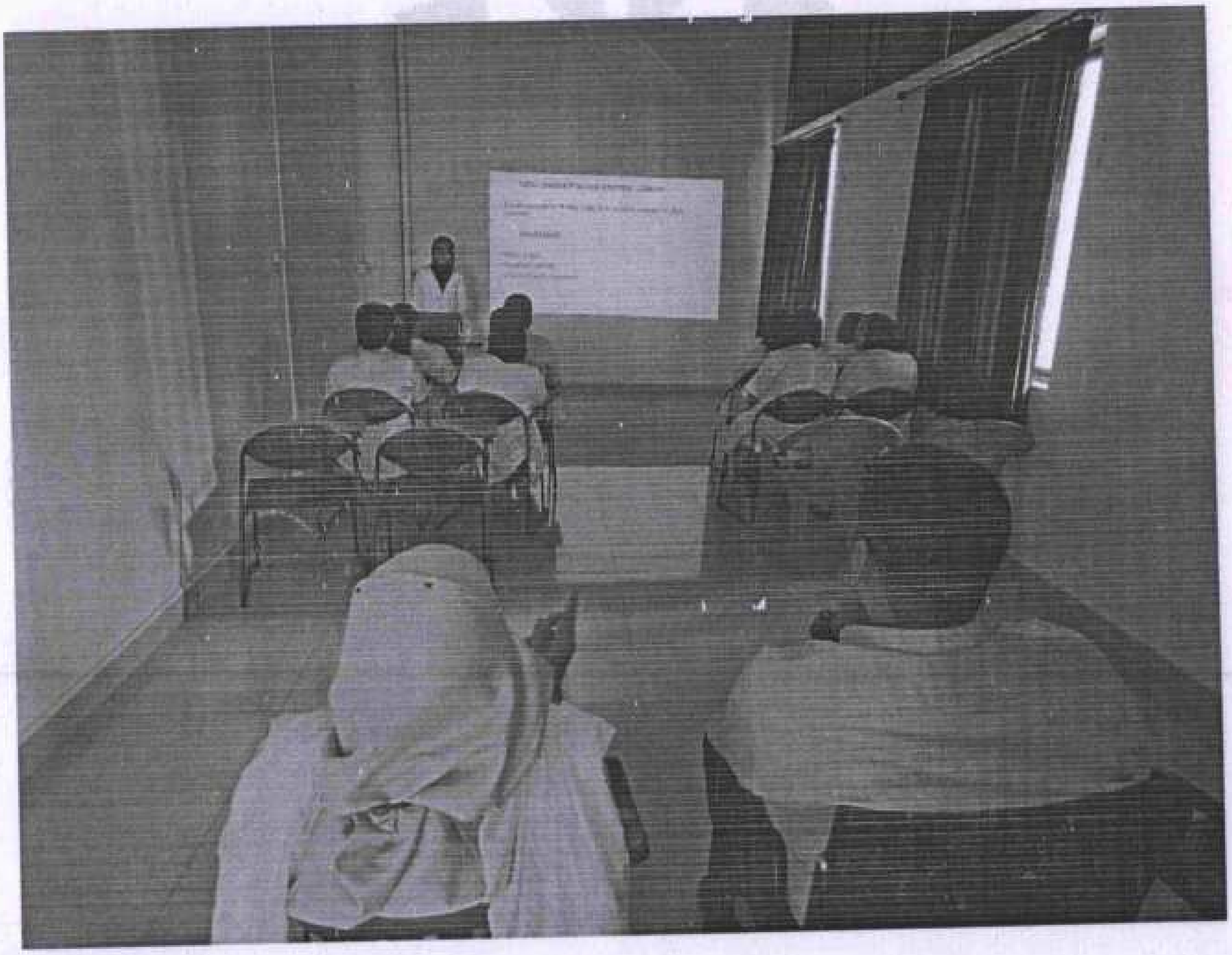
DEPARTMENT OF PEDIATRIC AND PREVENTIVE DENTISTRY

DETAILS OF SPECIAL PROGRAMS FOR ADVANCED LEARNERS

Scientific Presentations: Advanced performers are encouraged to present their scientific research and findings at conferences, both within the college and at national/international levels. This platform allows them to showcase their knowledge and contribute to the academic community.



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Undergraduate Conferences and Workshops: Special provisions are made for advanced students to attend conferences and workshops specifically tailored for undergraduates. This exposure broadens their perspective, keeps them updated with the latest advancements, and encourages networking with peers and professionals.

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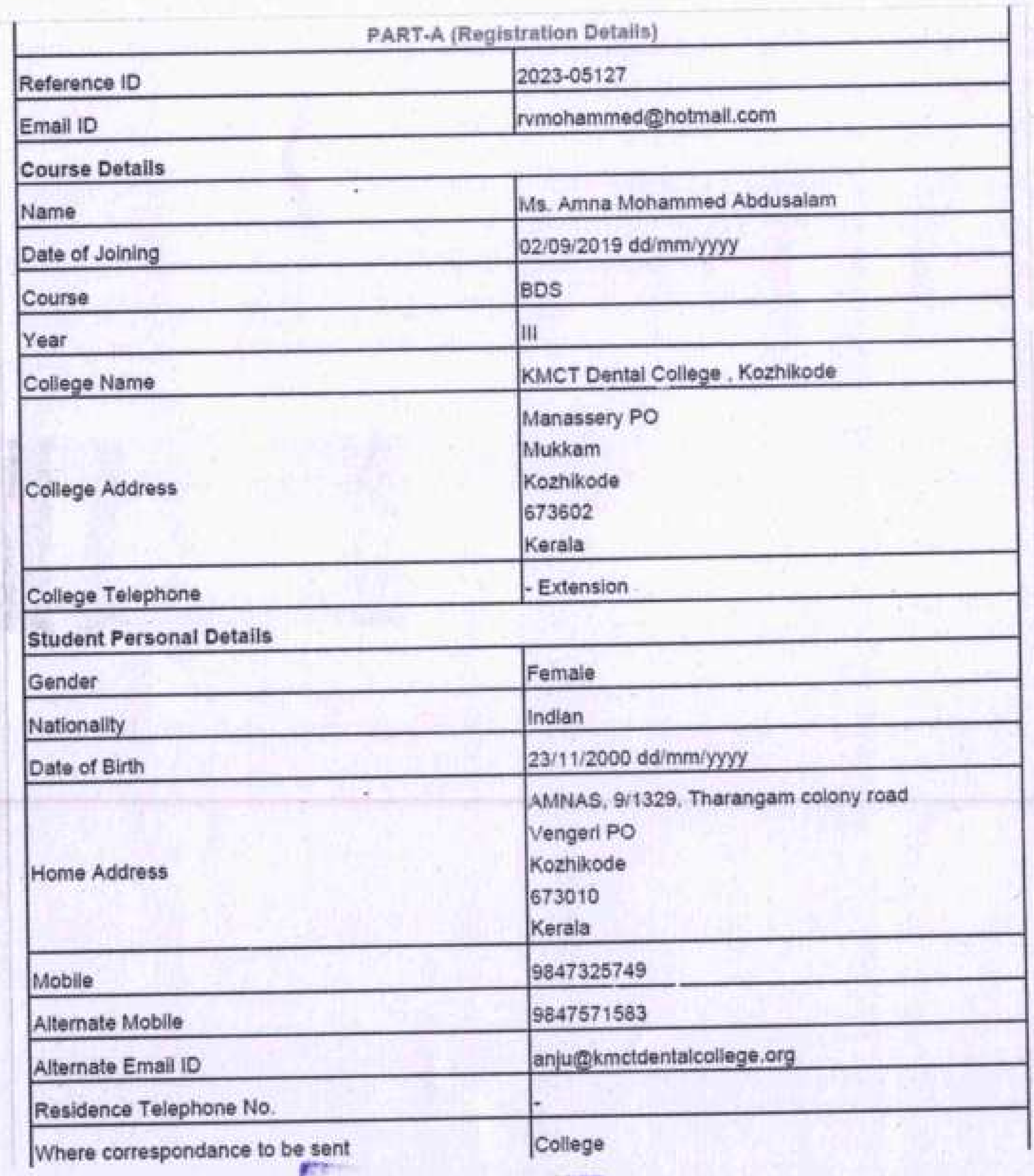
Participation in Research Projects and Publications: Advanced performers are actively involved in research projects under the guidance of faculty. Their contributions to research are often published in scientific journals, enhancing their academic profile and fostering a culture of academic excellence.



PART-A (Registration Details)	
Reference ID	2023-05127
Email ID	rvmohammed@hotmail.com
Course Details	
Name	Ms. Amna Mohammed Abdusalam
Date of Joining	02/09/2019 dd/mm/yyyy
Course	BDS
Year	III
College Name	KMCT Dental College , Kozhikode
College Address	Manassery PO Mukkam Kozhikode 673602 Kerala
College Telephone	- Extension
Student Personal Details	
Gender	Female
Nationality	Indian
Date of Birth	23/11/2000 dd/mm/yyyy
Home Address	AMNAS, 9/1329, Tharangam colony road Vengeri PO Kozhikode 673010 Kerala
Mobile	9847325749
Alternate Mobile	9847571583
Alternate Email ID	anju@kmctdentalcollege.org
Residence Telephone No.	-
Where correspondance to be sent	College

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Guide Name	Dr. Anju R.v
Designation	Associate Professor
Department	Pedodontics
College	KMCT Dental College , Kozhikode
College Address	KMCT Dental College Manassery, Mukkam Kozhikode 673602 Kerala
Mobile	9946680710
Telephone	Residance: - Office: - Extension
Guide email	anju@kmctdentalcollege.org

PART-C (Attachments)	
Application Attestation Form	Yes
Ethical Clearance	No
Inform Consent Form	Yes
Case Study Form	No
Study Questionnaire	Yes

PART-D (Proposal Details)	
Title	Assessment of awareness on etiology and preventive practices of early childhood caries among mothers with children below 5 years in a peri-urban area.
Type of Study	Health Education
Subject Area	Pedodontics & Preventive Dentistry
Department *(where study will be conducted)*	Pedodontics and Preventive dentistry, immunization center of Community Health Centers, Women and Child hospital.
Research Proposal	Yes

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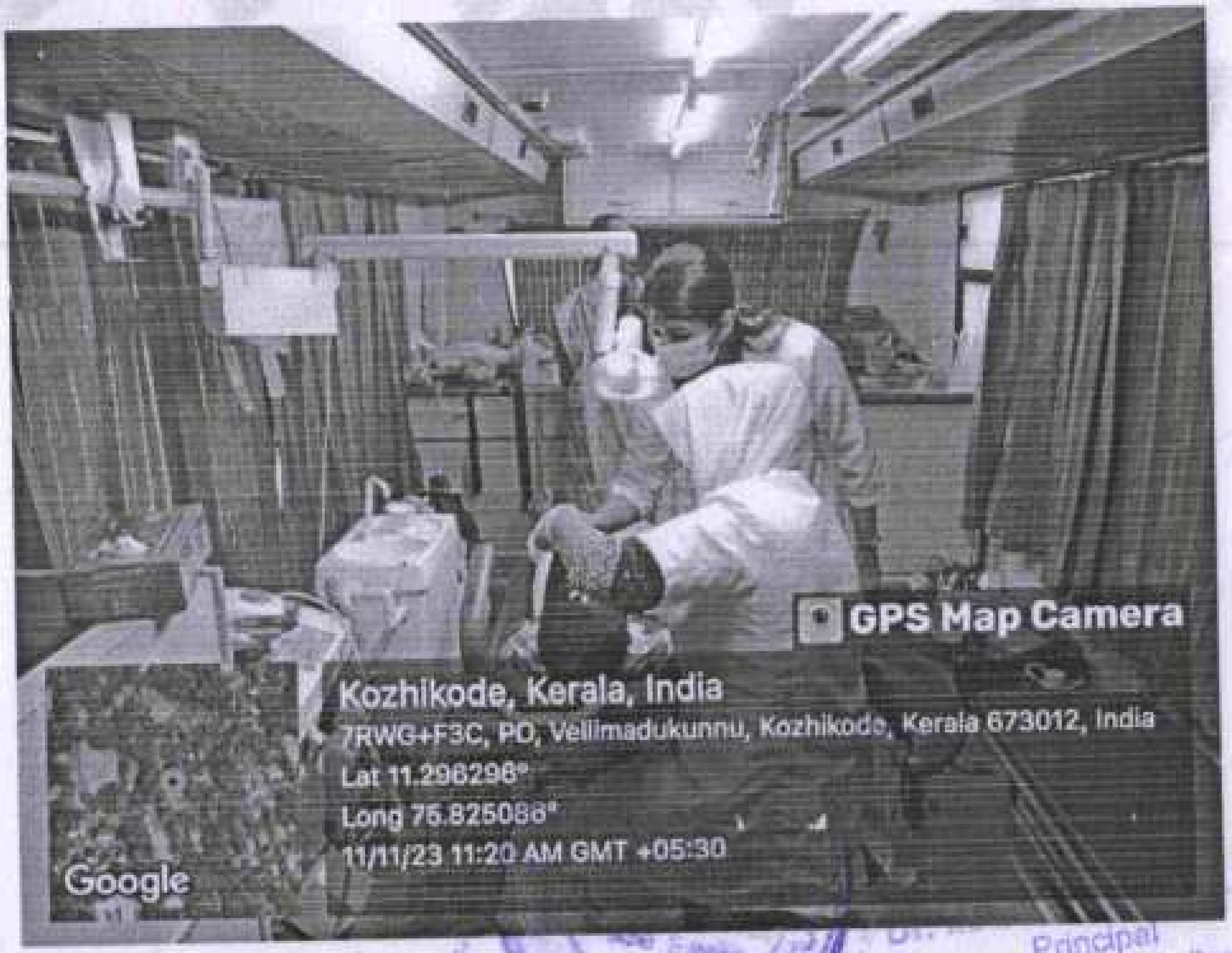
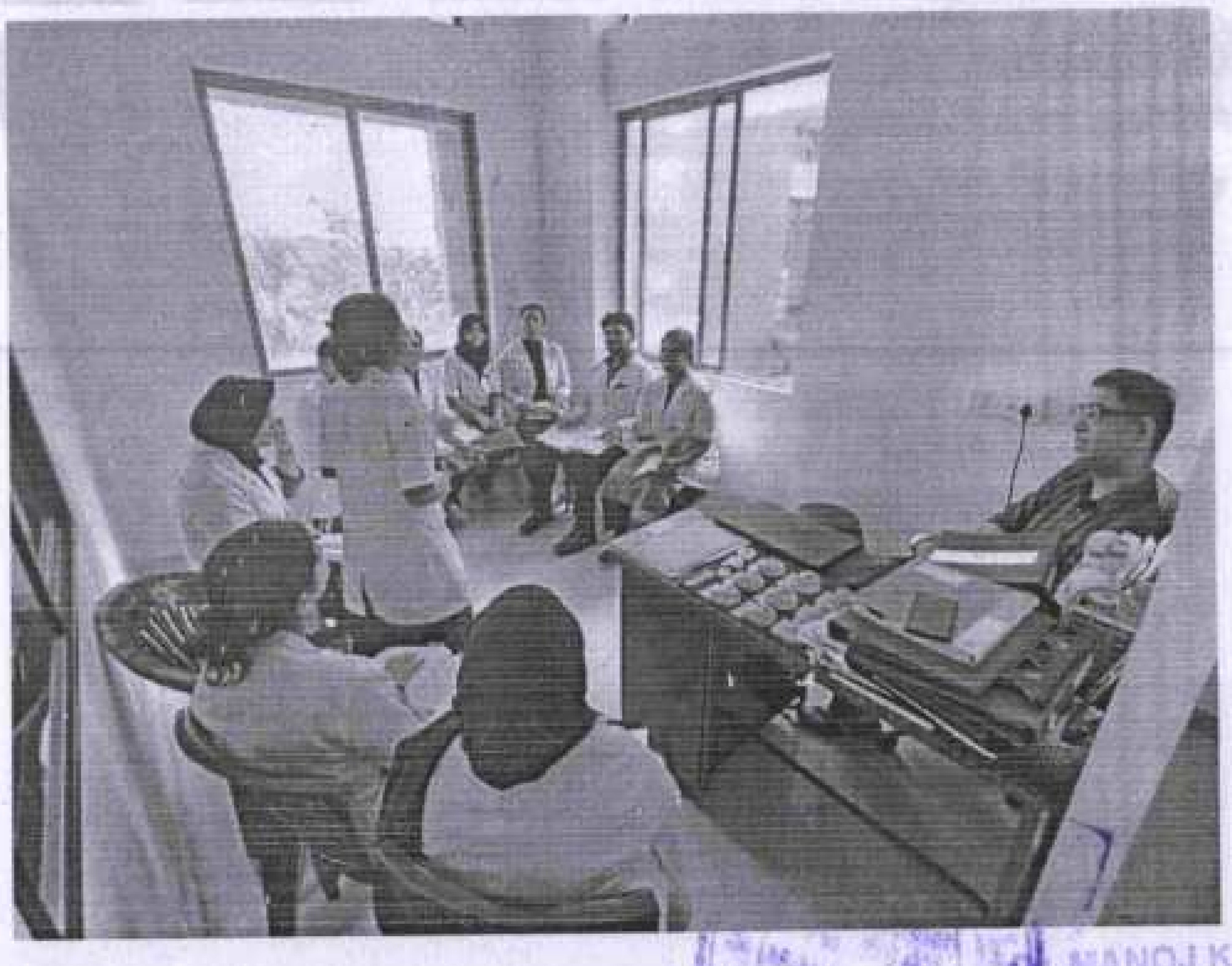
Exposure to Complex Clinical Situations and Procedures: These students are provided opportunities to observe and assist in complex clinical cases and procedures. This hands-on experience under supervision enhances their clinical skills and confidence.



GPS Map Camera
Kozhikode, Kerala, India
7RWG+F3C, PO, Vellimadukunnu, Kozhikode, Kerala 673012, India
Lat 11.296298°
Long 75.825088°
11/11/23 11:20 AM GMT +05:30

K.P
Principal
KMCT Dental College
Manassery, Mukkam

Seminar Presentations: Advanced performers are encouraged to deliver seminars on specialized topics, allowing them to delve deeper into particular subjects, share their expertise, and develop their presentation skills.



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Access to Additional Books, Journals, and E-Library: The college ensures that these students have access to an extensive collection of books, journals, and online resources, providing them with comprehensive materials to further their knowledge beyond the standard curriculum.

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Clinic Pathological Club Participation: The provision to attend and actively participate in the Clinic Pathological Club allows advanced performers to engage in discussions, case studies, and analyses, further enhancing their understanding of clinical scenarios and pathologies.

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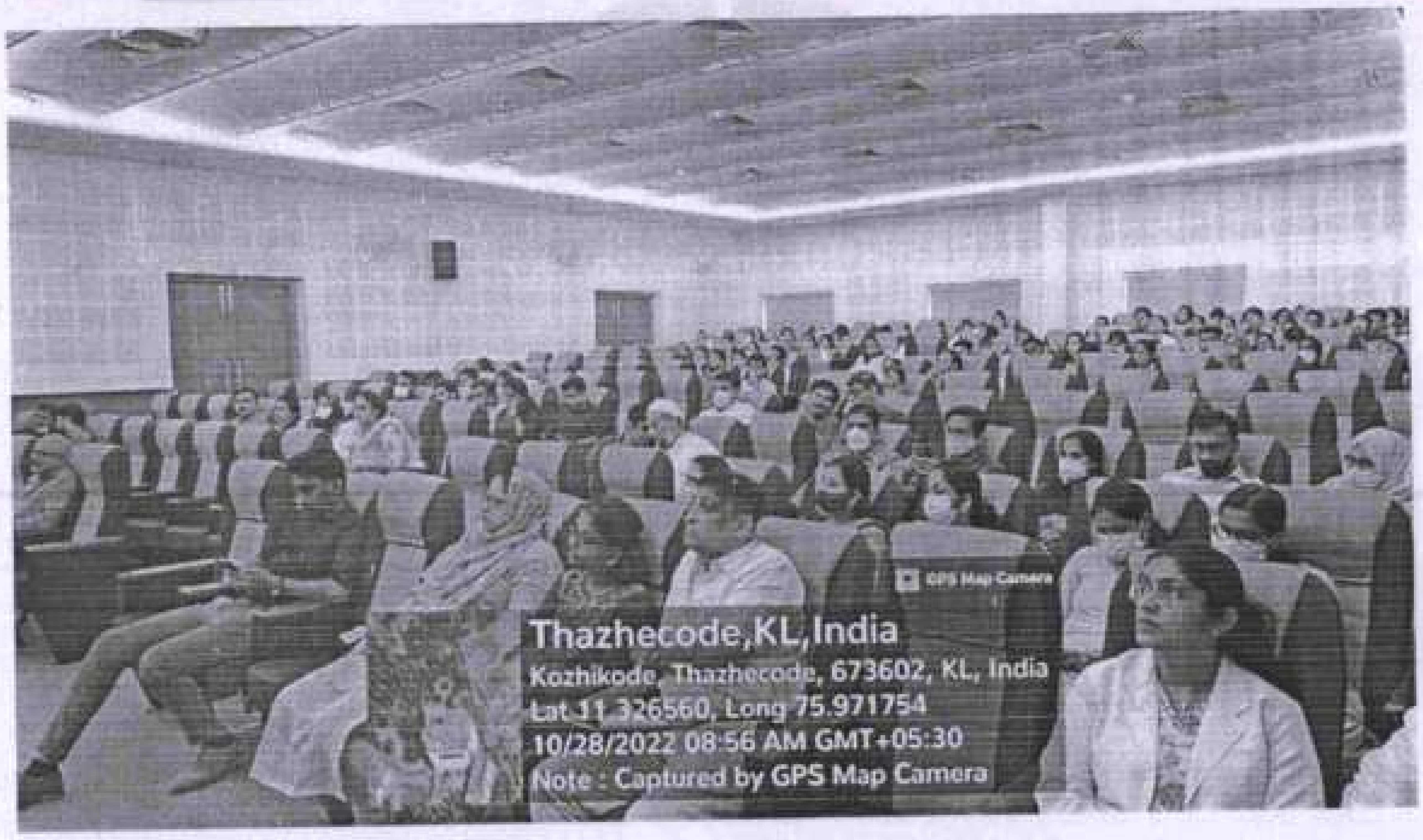
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Note : Captured by GPS Map Camera

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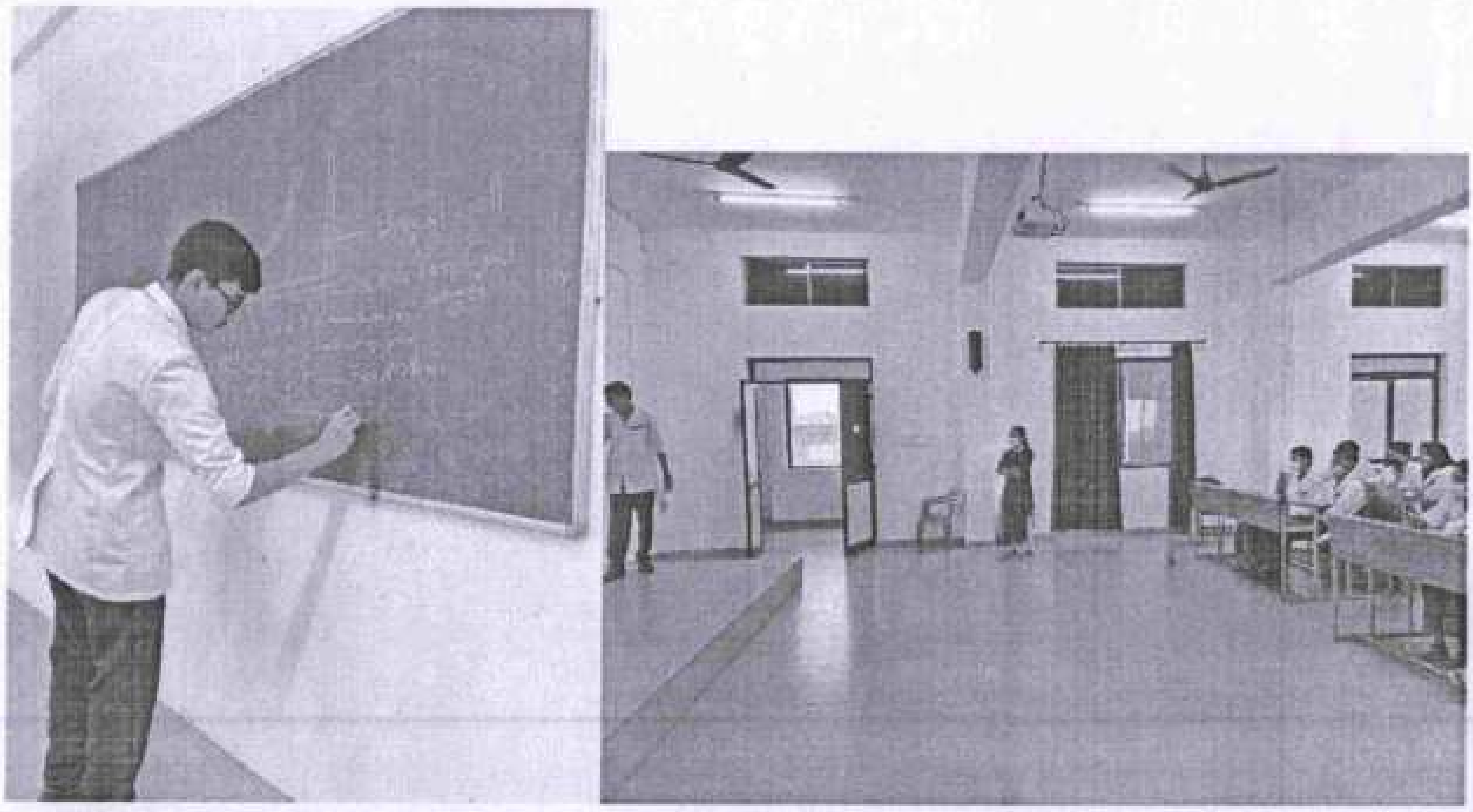
DEPARTMENT OF ORAL PATHOLOGY & MICROBIOLOGY

❖ DETAILS OF SPECIAL PROGRAMS FOR ADVANCED PERFORMERS

- **Seminar presentation:**

Advanced performers are encouraged to deliver seminars on specialized topics. This enhances the deeper learning of the particular topics and develop their presentation and communication skills.



- Seminar presentation with effective illustration of the topic by the student.

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- **Access to additional books, journals and E-Library:**

The department ensures that advanced learners have access to an extensive collection of books, journals and online resources; which enhances the knowledge and deep learning process of them to excel in the subject.

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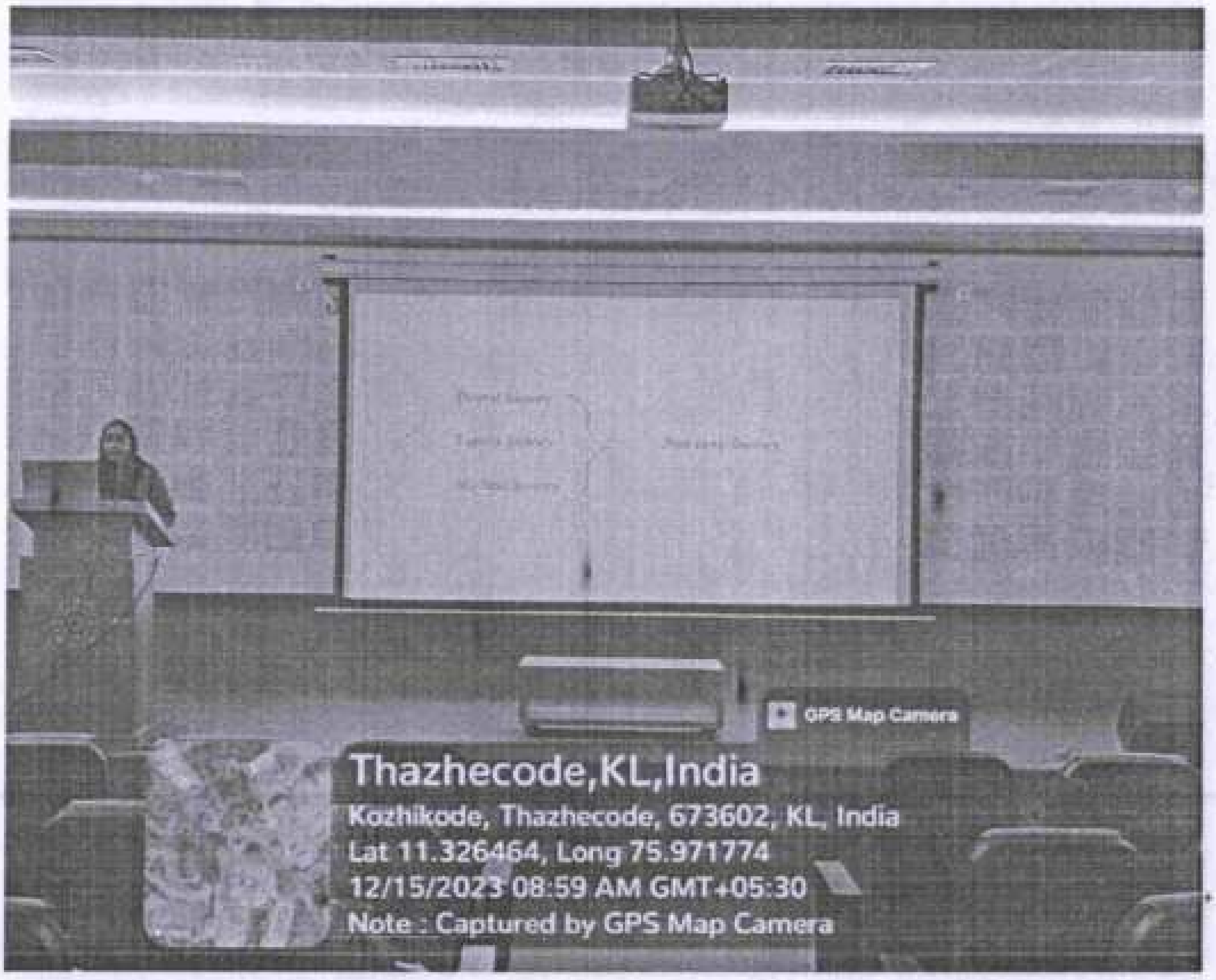
- **Clinic Pathologic club participation:**

The Provision to attend and actively participate in the Clinic Pathological Club allows advanced performers to engage in discussions, case studies and there giving them an opportunity to showcase their clinical assessment skills and presentation skills, which improves the confidence of the student to participate in similar sessions in the future as well as to improve the learning outcome.



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Note : Captured by GPS Map Camera

- Case presentation during Clinic Pathological Club by the student.

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DEPARTMENT OF ORAL & MAXILLOFACIAL SURGERY

DETAILS OF SPECIAL PROGRAMS FOR ADVANCED LEARNERS

Undergraduate Workshops: Skill enhancement worshops were conducted for the advanced learners to sharpen their surgical skills. Experts were assigned to train the students for suturing exercises on meat.

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Manassery, Kerala, India
8XGC+FPV, KMCT Medical College Rd, Manassery, Kerala 673572, India
Lat 11.326411°
Long 75.971709°
05/02/24 11:58 AM GMT +05:30
Google

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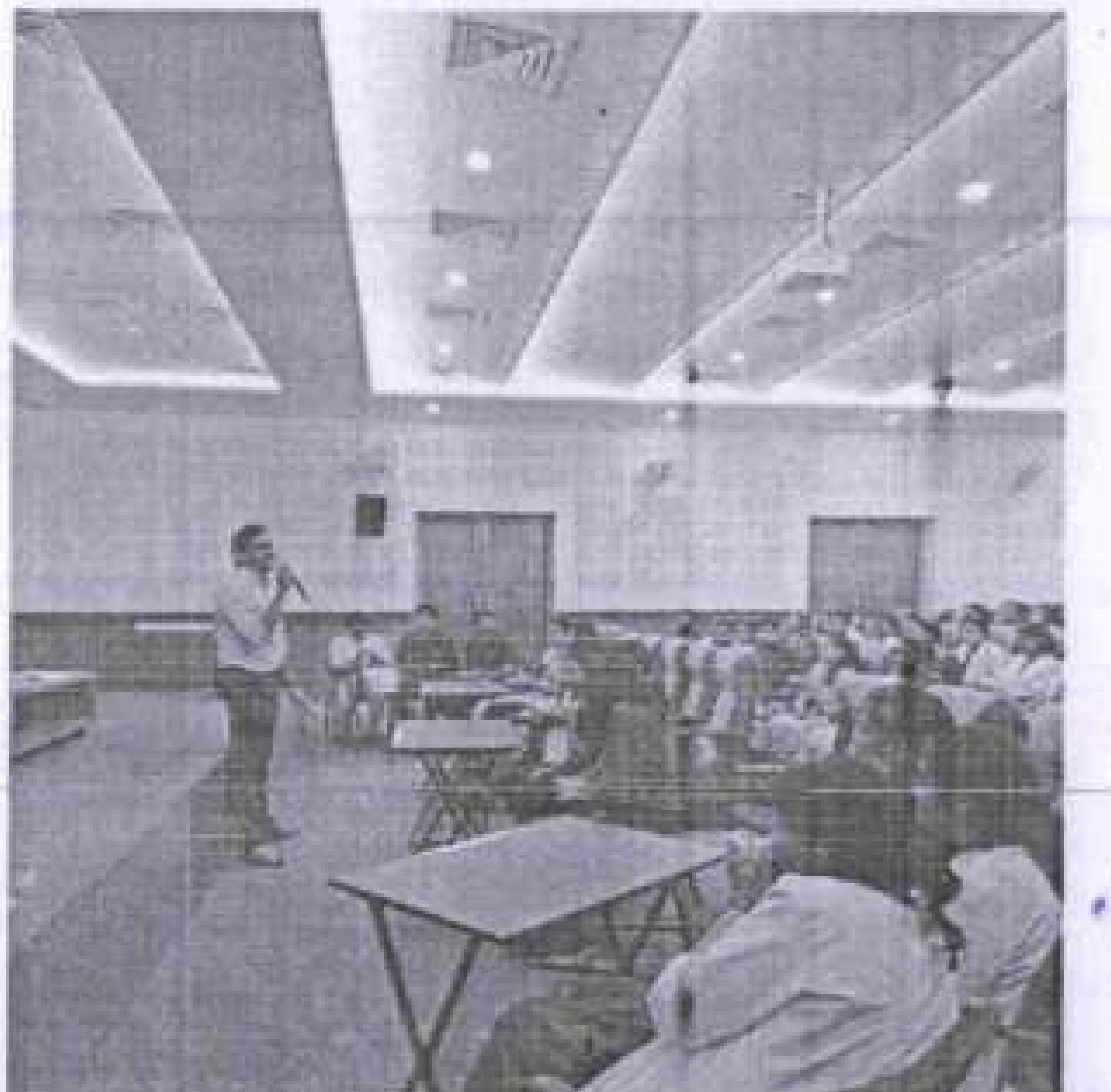
Quiz competitions: Advanced learners were made to participate in Quiz competition conducted by OMFS department. It dealt with advanced basics and advanced concepts in the field of maxillofacial surgery.



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Exposure to complex Clinical situations and procedures: The advanced learners awere given the opurtunity to observe Major OT cases and assist Minor OT cases done by staffs and post graduate students.

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Manassery, Kerala, India
8xgc+f64, Manassery, Kerala 673572, India
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GPS Map Camera
Google
Manassery, Kerala, India
8xgc+f64, Manassery, Kerala 673572, India
Lat 11.326154° Long 75.970365°
21/11/24 11:26 AM GMT +05:30

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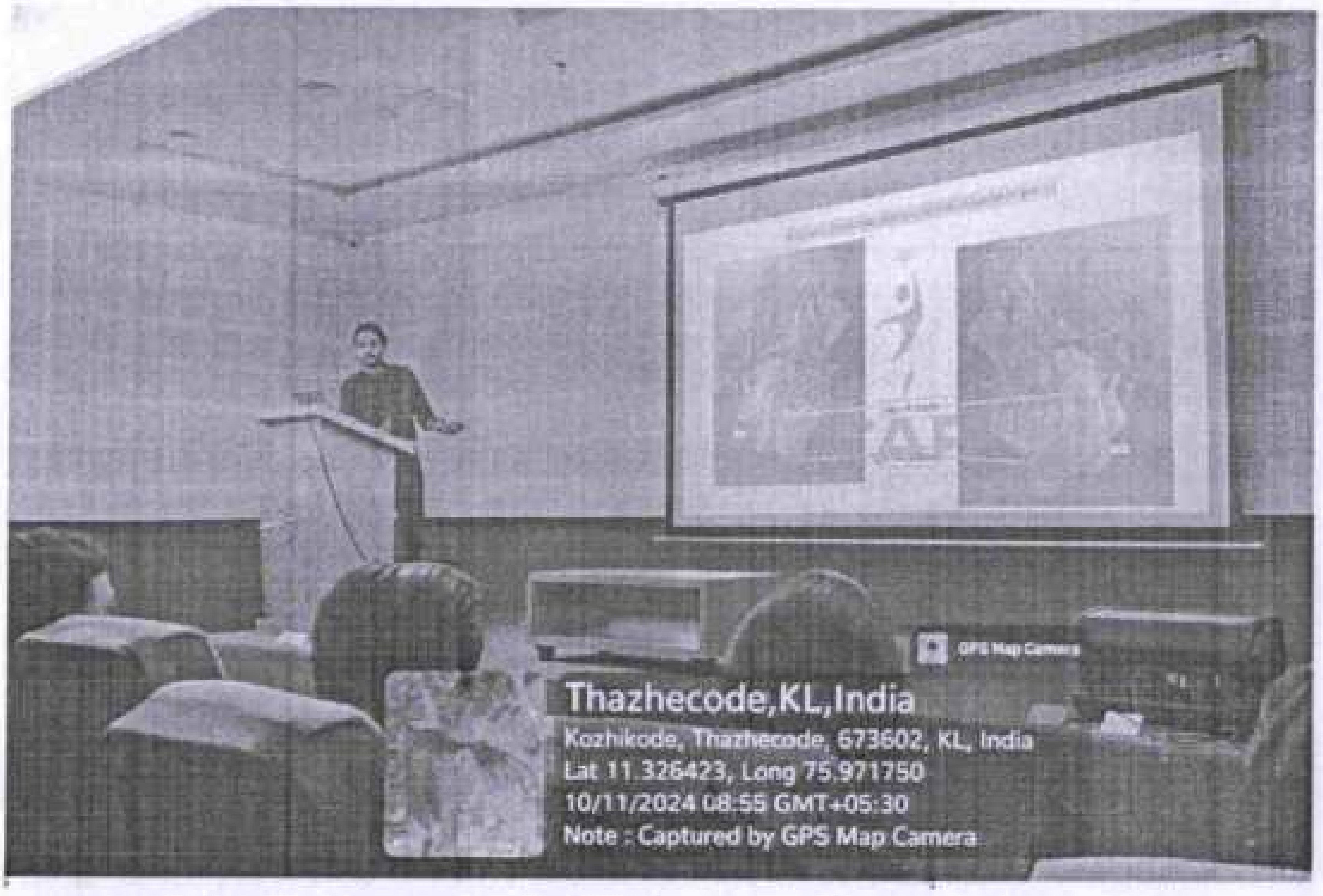
Participation in Clinico Pathological Clubs: In order to build aptitude among the advanced learners, they were made to attend the Clinical club presentations done by post graduate students.



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Kozhikode, Thazhecode, 673602, KL, India
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Note : Captured by GPS Map Camera

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Principal
KMCT Dental College
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DEPARTMENT OF PROSTHODONTICS

DETAILS OF SPECIAL PROGRAMS FOR FAST PERFORMERS

Scienitific Presentations:

Topics

1. Catching rays with smart prosthesis
2. Electromagnetic articulography
3. Control of gag reflex using virtual reality headset in dental procedures
4. Sneak peek into "PEEK"
5. Salivary pacemakers

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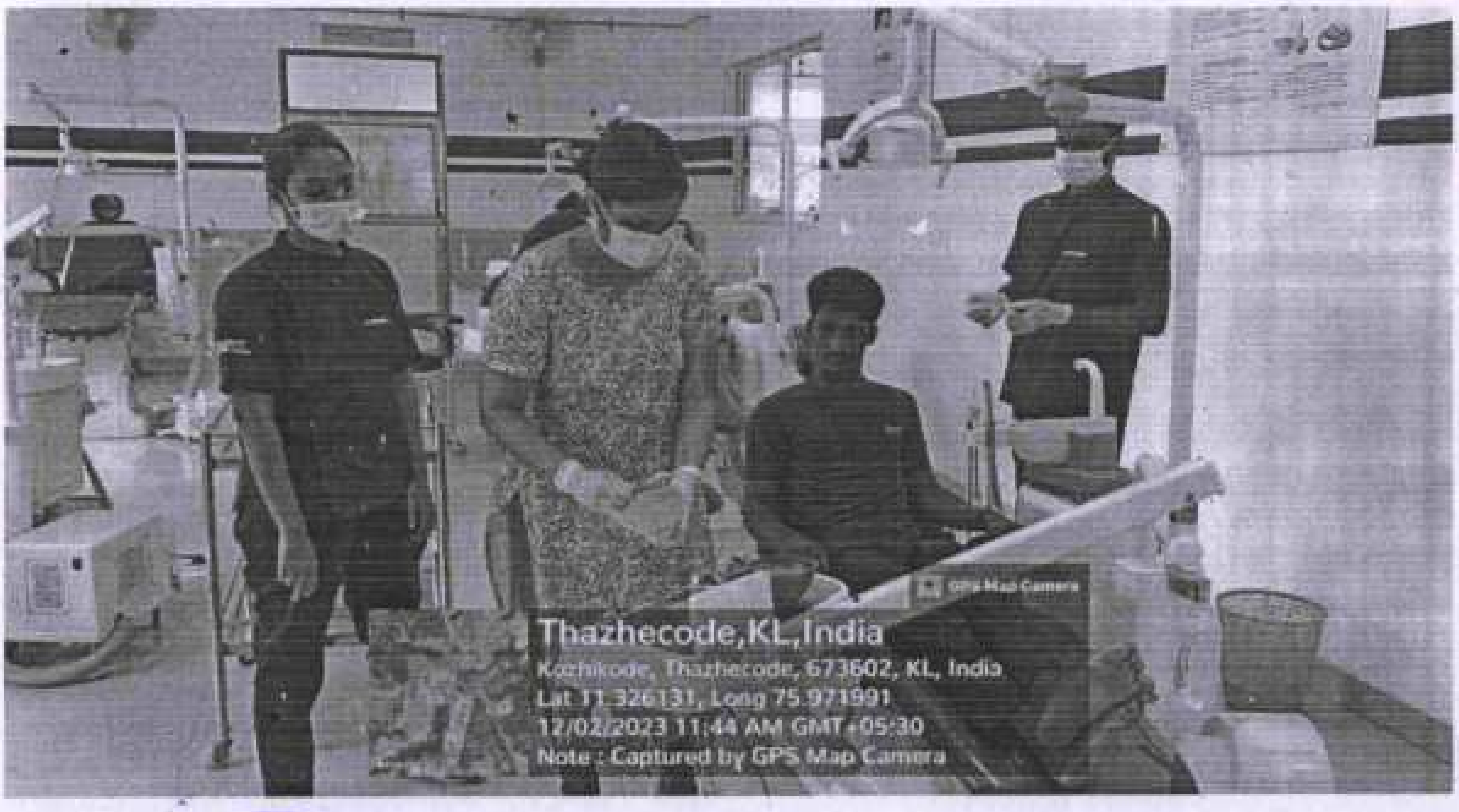
- **Exposure to complex clinical situations**

Advanced learners were given chances to assist post graduates and observe complex clinical cases in PG clinic.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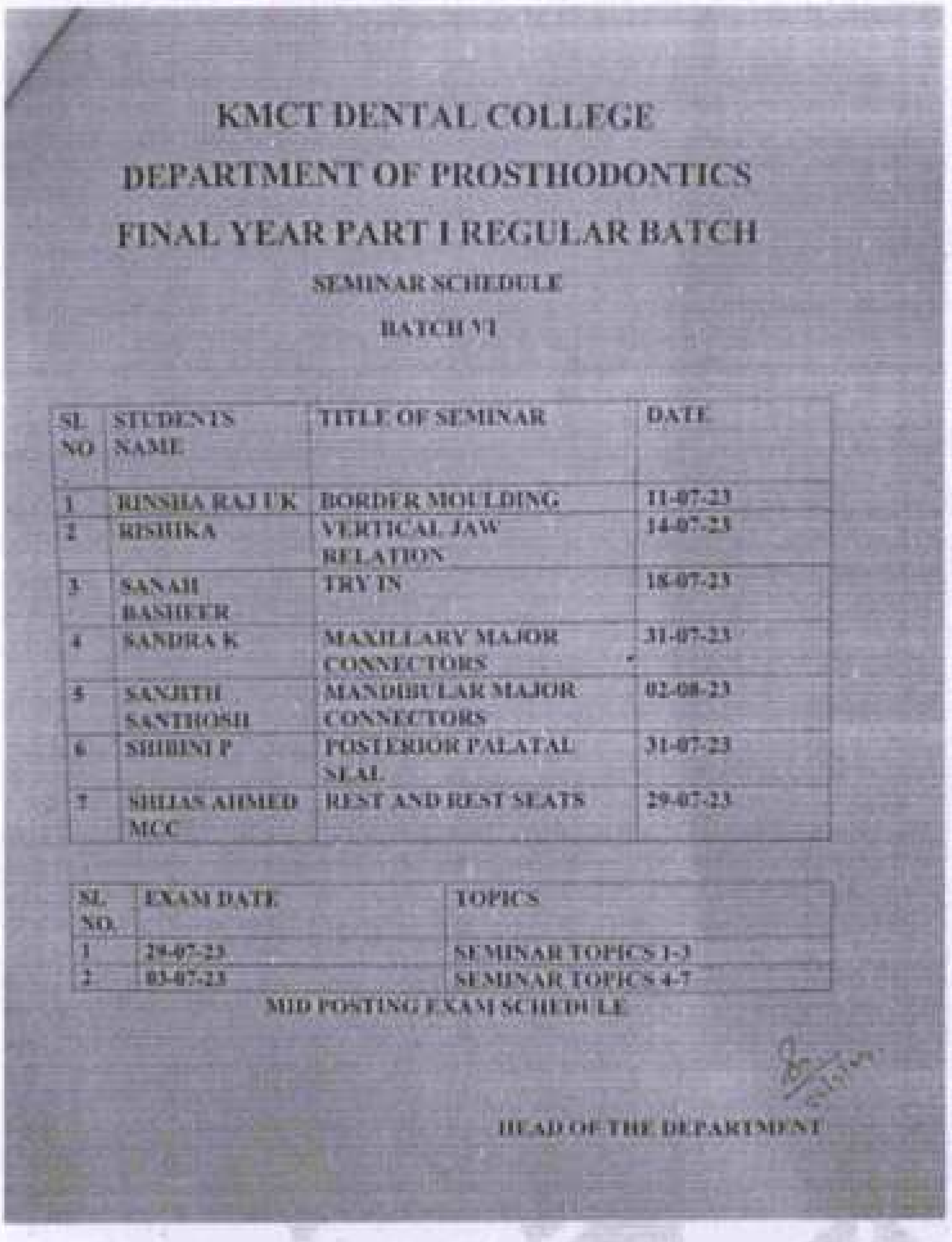
Seminar presentations:



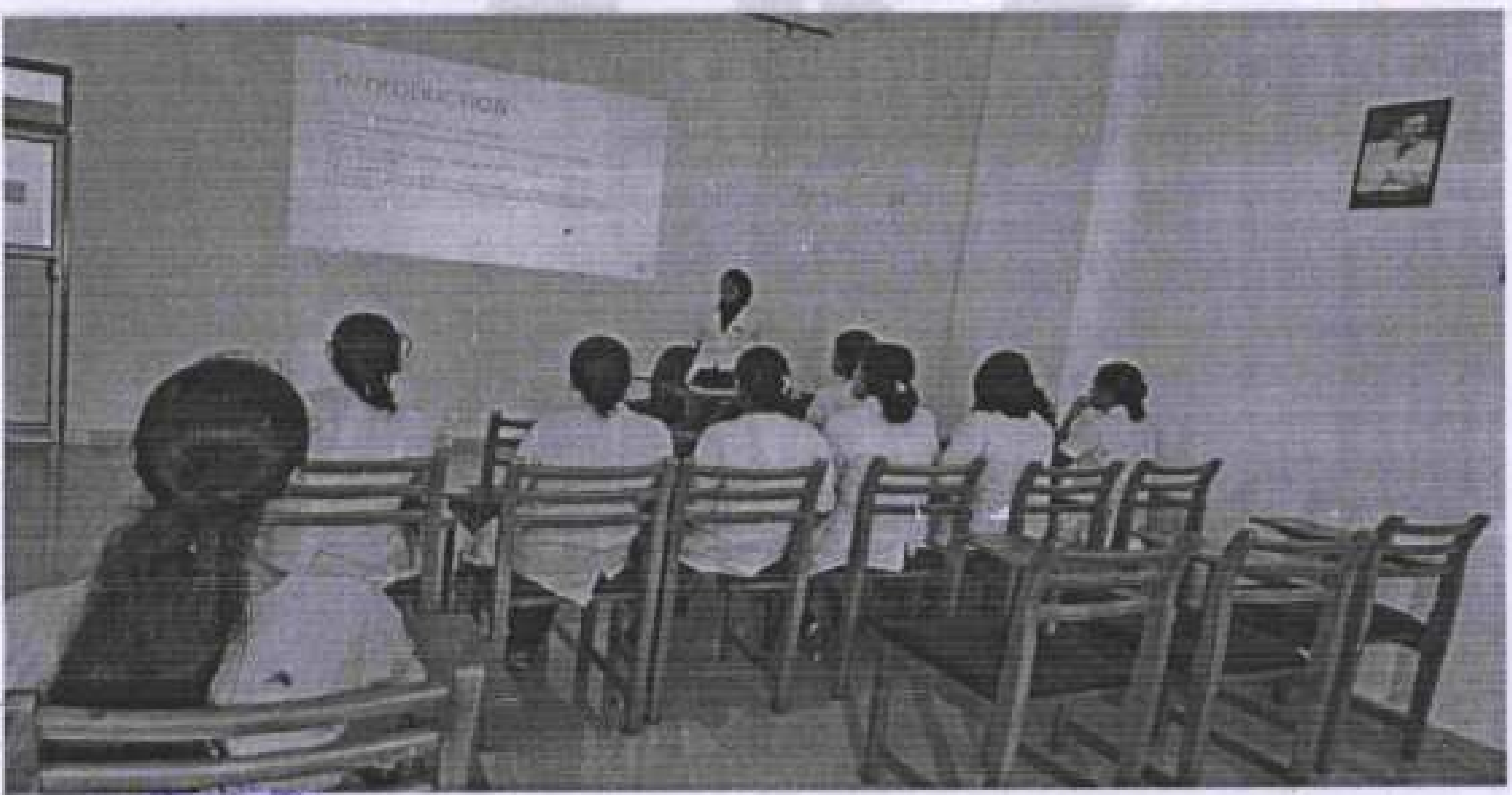
KMCT DENTAL COLLEGE
DEPARTMENT OF PROSTHODONTICS
FINAL YEAR PART I REGULAR BATCH
SEMINAR SCHEDULE
BATCH VI

SL NO	STUDENTS NAME	TITLE OF SEMINAR	DATE
1	RINSHA RAJ UK	BORDER MOULDING	11-07-23
2	RISHIKA	VERTICAL JAW RELATION	14-07-23
3	SANAH BASHEER	TRY IN	18-07-23
4	SANDRA K	MAXILLARY MAJOR CONNECTORS	31-07-23
5	SANJITH SANTHOSH	MANDIBULAR MAJOR CONNECTORS	02-08-23
6	SHIBINI P	POSTERIOR PALATAL SEAL	31-07-23
7	SHIJAS AHMED MCC	REST AND REST SEATS	29-07-23

SL. NO.	EXAM DATE	TOPICS
1	29-07-23	SEMINAR TOPICS 1-3
2	03-07-23	SEMINAR TOPICS 4-7

MID POSTING EXAM SCHEDULE

HEAD OF THE DEPARTMENT



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Special Classes with Subject Experts: Slow performers attend additional classes conducted by subject experts. These sessions focus on clarifying concepts, addressing doubts, and providing extra guidance on challenging topics.

Encouragement of Collaborative Study with Advanced Learners: Collaborative study groups are formed, pairing slow performers with high-achieving peers. This fosters a supportive learning environment where advanced learners mentor and assist their peers in understanding complex subjects.

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Rapid Revision and Revision Tests Before University Examinations: Special revision sessions are organized before exams to quickly recap the syllabus, focusing on key topics Revision tests simulate exam conditions, aiding students in practicing time management.

Encouraging Reading Books and articles : To improve comprehension and understanding, students are encouraged to read supplementary materials or textbooks and articles that explain important topics in wider perspectives

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CLASSIC ARTICLE

Evaluation of the factors necessary to develop stability in mandibular dentures

Corwin R. Wright, DDS, MS*
University of Michigan, School of Dentistry, Ann Arbor, Mich

Stability is defined as "The quality of a denture to resist displacement by functional stresses."[1] It is usually the distinguishing factor between success and failure. Patients who possess the so-called "knack" of wearing mandibular dentures will enjoy a certain degree of stability. Those not possessing this "knack" present the dentist with a problem. All of the good that is built into a denture is rather useless to a patient unless he can keep it in position during ordinary oral functions. Building stability into mandibular dentures and teaching patients to take advantage of the quality are often separate problems. Cooperation of the patient will give the best results only when the dentist provides specific supervision.

The stresses causing instability come from many directions and are created during most of the functions of the mouth. The qualities necessary to create and maintain stability are dependent upon the following factors. (1) retention, (2) diagnosis, (3) the functions of the mouth, (4) the denture base outline, (5) the occlusal plane, (6) the arch arrangement,-and (7) instruction and education of the patient.

RETENTION

Retention of mandibular dentures depends upon a seal in the same manner as a maxillary denture, but the seal area is not as readily located, and it has considerable movement during ordinary functions of the mouth.

DIAGNOSIS

The examination of edentulous mouths can provide information necessary to make a diagnosis that will relate directly to the retention and stability of mandibular dentures. Many examination charts become too involved in details that have little or no direct significance in either the construction or prognosis of the finished dentures. However, there are some conditions that either affect one's ability to construct a satisfactory denture or limit the ability of a patient to adjust to a mandibular denture. Successful mandibular denture service depends to a large extent on the patient's ability to wear dentures. The question is how one can determine by an examination of the edentulous mouth who has and who does not have this so-called "knack" of handling a mandibular denture. Patients who have a normal tongue position are those who have a set of conditions that are conducive to the retention of the mandibular denture. Those who

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EDENTULOUS IMPRESSION PROCEDURES FOR MAXIMUM RETENTION AND STABILITY

SAMUEL FRIEDMAN, D.D.S.*

New York University, College of Dentistry, New York, N. Y.

THE COMPLETE DENTURE PROBLEM poses a perpetual challenge to both the general practitioner and the prosthodontist. Its successful resolution depends upon many factors. The dentist's knowledge and possession of the necessary technical skills, plus the patient's willingness and capacity to persevere and master the use of well-constructed dentures are factors of major consideration, and vital to the ultimate result. The importance of a definite understanding with every patient prior to undertaking the construction of dentures cannot be overemphasized.

The attainment of maximum chewing efficiency[1] is a cardinal objective of the entire prosthetic procedure. For its realization, the procurement of maximum retention and stability without detriment to the underlying foundations is imperative.

Retention implies the power to counteract displacement in a direction immediately opposite the path of insertion.[2] It depends upon the forces of adhesion, cohesion, and atmospheric pressure.

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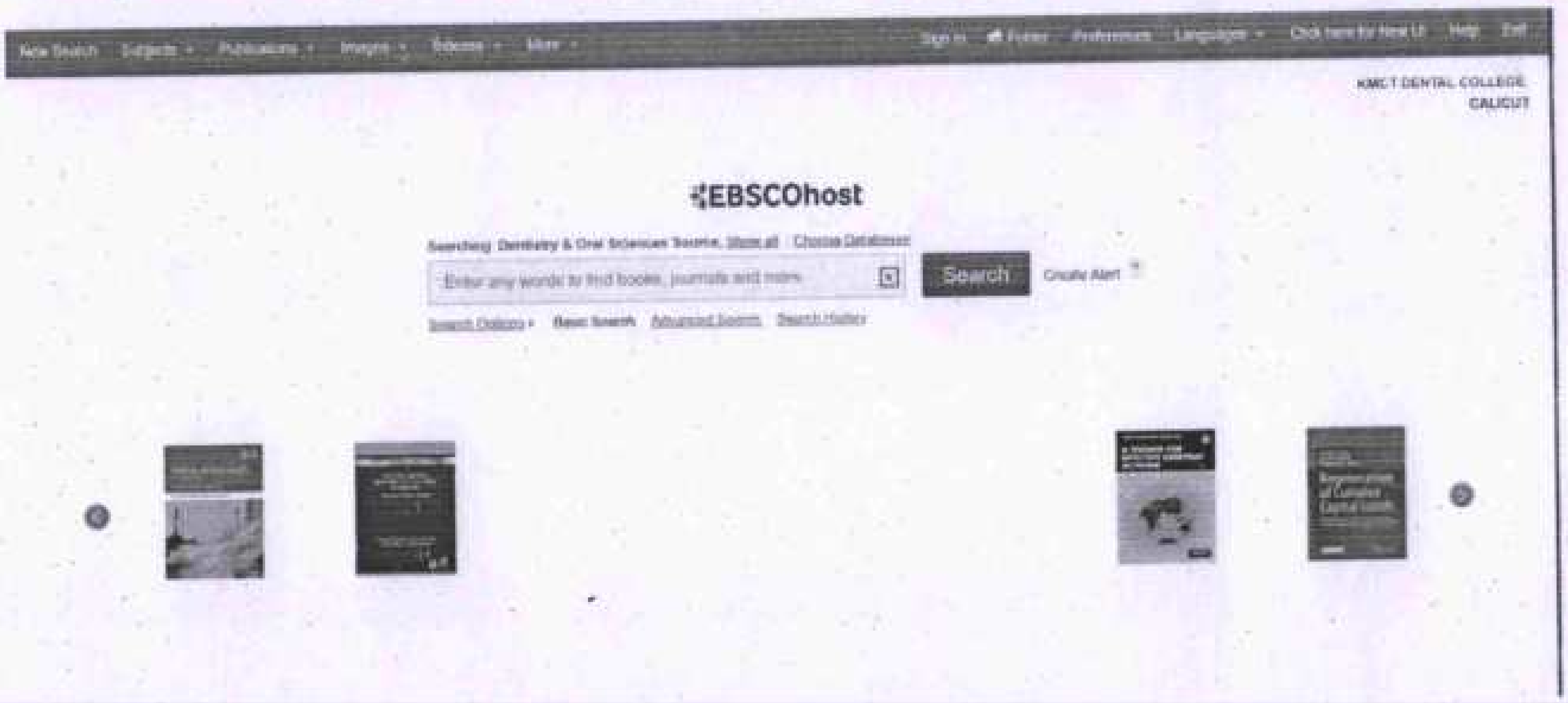

Searching: Dentistry & Oral Sciences Source, Show all

College is providing EBSCO access to the students. They can log in and access multiple aricles and textbook through this service.

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DEPARTMENT OF PERIODONTOLOGY

SPECIAL PROGRAMS FOR ADVANCED LEARNERS

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Scientific presentations

Report

Advanced learners are allowed to participate in scientific presentations to develop effective collaboration between researchers, clinicians to develop and translate new technologies and treatments. Students can share their ideas, research and findings with others. Active participation of students in scientific presentations emphasises their engagement, enthusiasm and contributions to the academic community.

This active participation demonstrates

- Increased confidence
- Critical thinking and analysis
- Effective communication
- Collaboration and team work
- Enthusiasm and motivation.
- Development of important skills
- Enhanced learning and engagement
- Improved academic performance.

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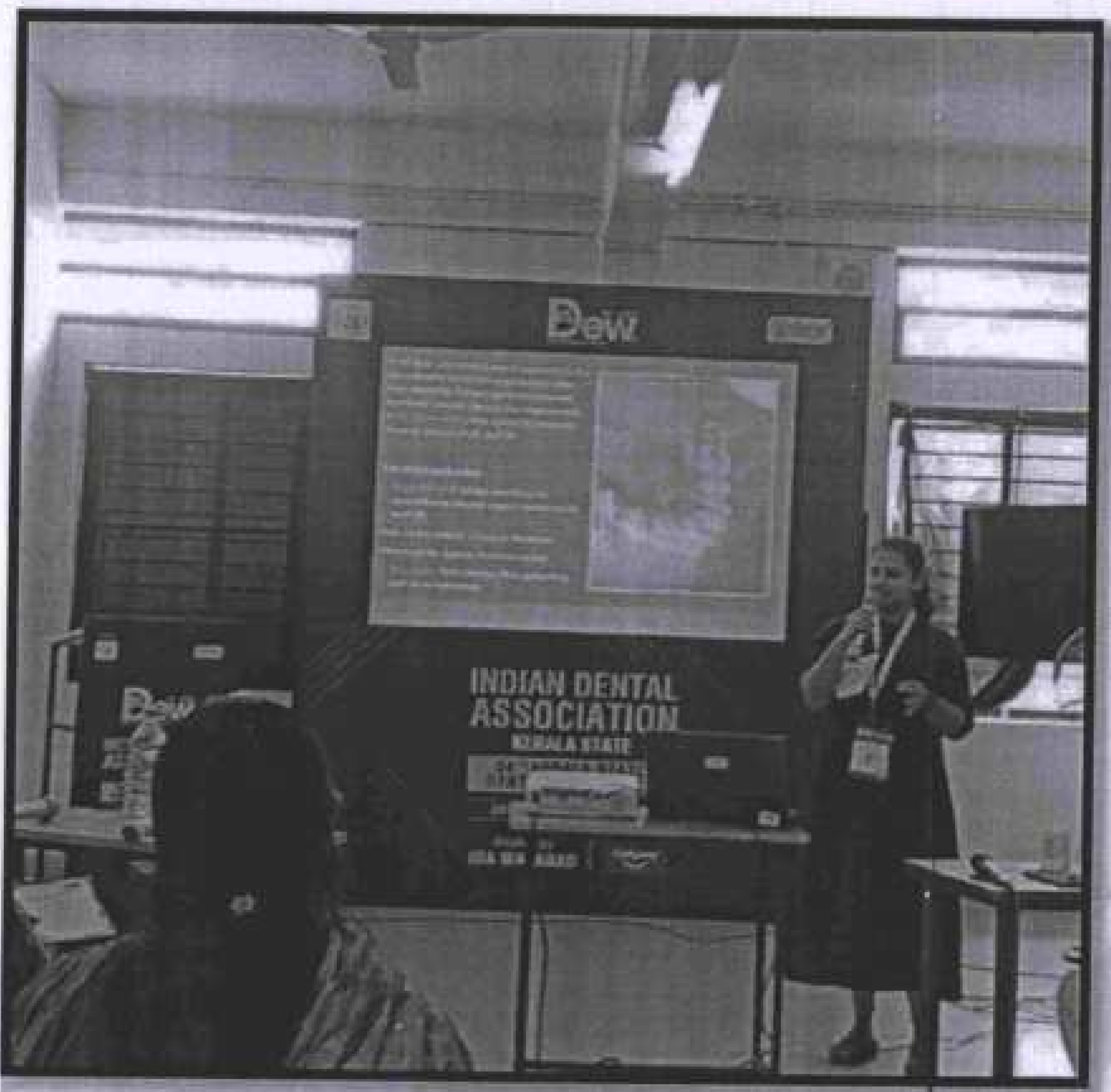

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Undergraduate conferences and workshops:

Special provisions are made for the students so that they engage with professionals, academicians and peers in their field, fostering learning, networking and skill development. The active participation of students in conferences and workshops has numerous advantages as:

- **Enhanced learning**
- **Improved communication**
- **Improving presentation skills**
- **Increased motivation and skills**
- **Professional developments.**

Its mandatory and our responsibility to encourage and support student participation in conferences and workshops which provides opportunities for them to learn, grow and succeed

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Participation in research projects and publications

Advanced learners actively involve in research projects under the guidance of faculty. Active participation of students in research projects under the mentorship of faculty emphasizes on the engagement, enthusiasm and contributions to academic and research community.

This active participation of students in research projects brings in following advantages:

- **Enhanced learning and understanding**
- **Development of research skills**
- **Increased motivation and engagement**
- **Career opportunities**
- **Contribution to knowledge.**

Sl no	Name of the study	Investigators	Guide
1	Awareness and knowledge of periodontal, plastic and esthetic surgery among house surgeons ;An online survey	Suha , Sneha ,Smiya	Dr.NAVIA GEORGE
2	Prevalence of chronic periodontitis in individuals diagnosed with dementia:A hospital based cross sectional study	Navia L	Dr.Harish Kumar
3	Knowledge and practices about expired ,unused medicines among pharmacist healthcare providers and general population in Kozhikode district,kerala	Soorya TK	Dr.Sruthi VG

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Exposure to complex clinical situations and procedures

Report

Students are allowed to observe periodontal cases which is necessary for them to equip knowledge, skill and confidence to handle challenging cases and scenarios in their future careers.

Students were exposed to a wide range of complex situations and procedures like:

- **Complex periodontal cases.**
- **Advanced surgical procedures**
- **Emergency situations**
- **Multidisciplinary care**
- **Case management.**

This act enhances clinical skills, increases confidence, improved critical thinking, better patient care and prepare students confidently for future careers.
Providing mentorship, encouraging critical thinking and evaluation of student performance provide positive reinforcement among students

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Seminar presentations

REPORT

Part of the curriculum demands students to present seminars on various topics related to the field of interest. The seminar presentation allows students to demonstrate their knowledge, understanding and communication skills. Best seminar award is given based on the assessment criteria.

- Assessing criteria:
    - **Completeness of preparation**
    - **Ability to answer questions**
    - **Knowledge in the topics**
    - **Skill in presentation**
    - **Proper utilization of audio-visual aids**

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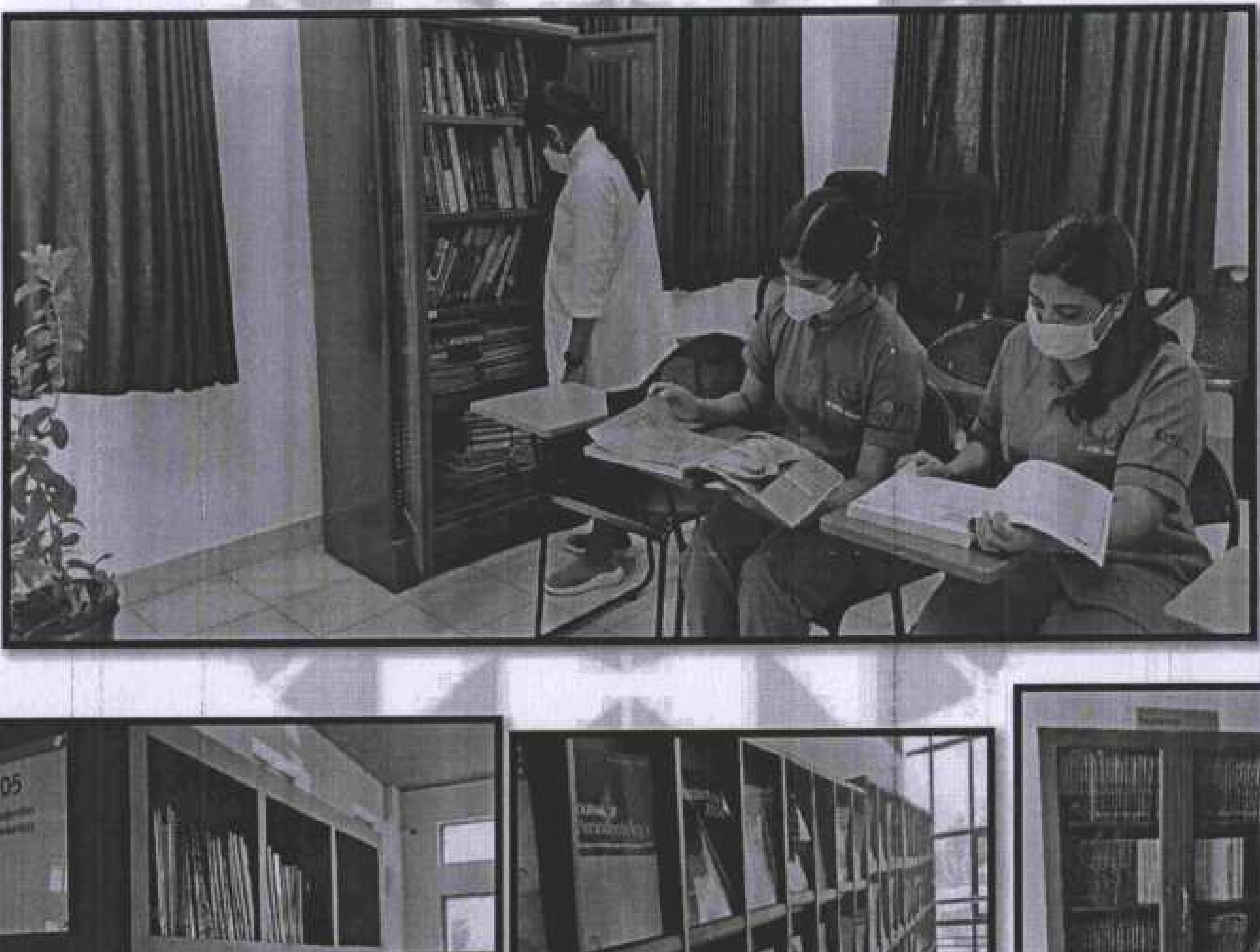
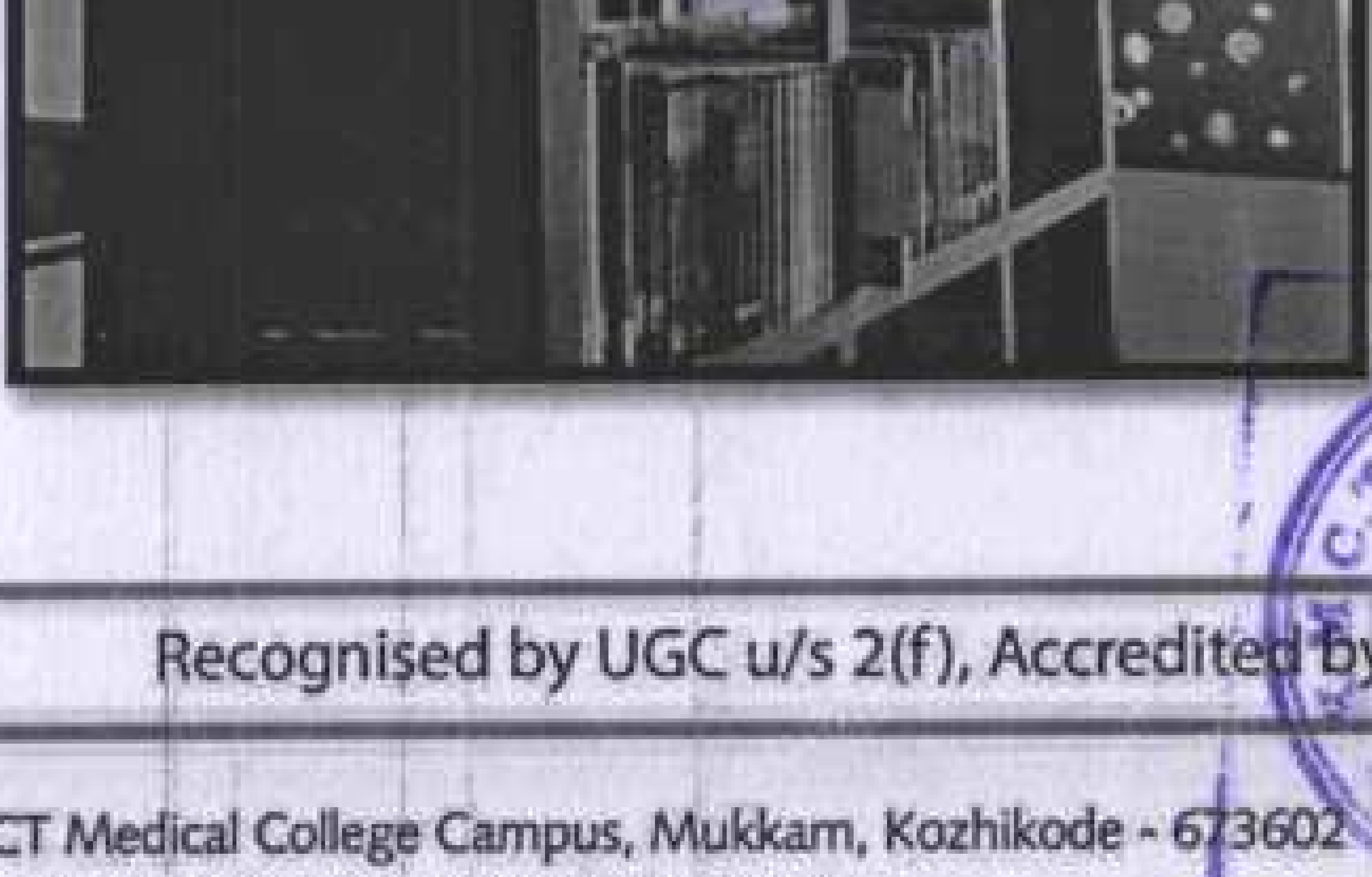
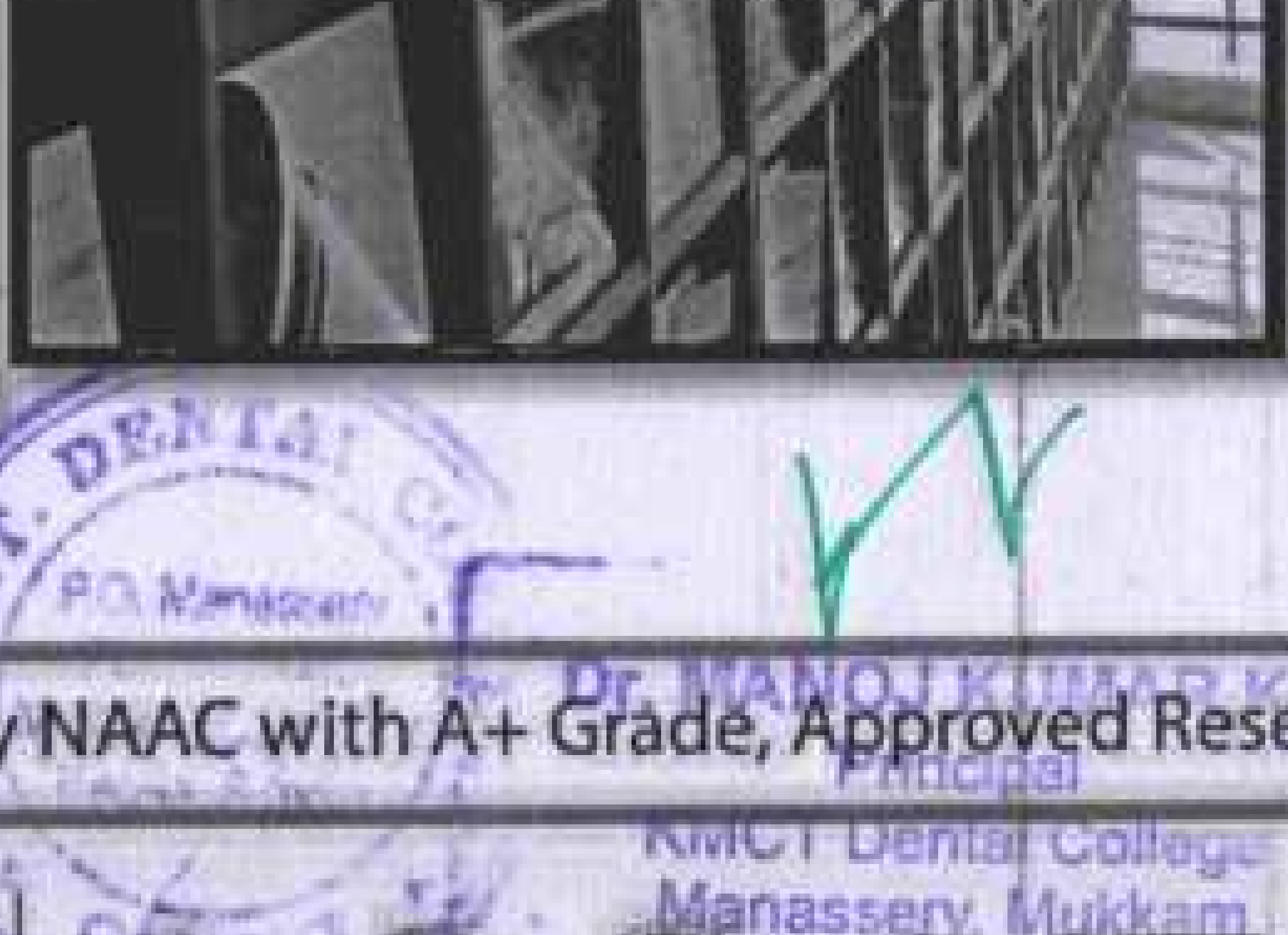
Access to additional books, journals and E-library

REPORT

College ensures that students have ample access to extensive collection of books, journals and online resources which provide them with comprehensive materials to span their knowledge beyond the standard curriculum







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CLINICAL PATHOLOGICAL CLUB PARTICIPATIONS

REPORT

Being a vital component of medical education, provides a platform for healthcare professionals to discuss and learn from complex clinical cases.

Case presentations. group discussions, interactive sessions improve the knowledge, critical thinking which help them to provide a platform for discussion, learning and professional development.

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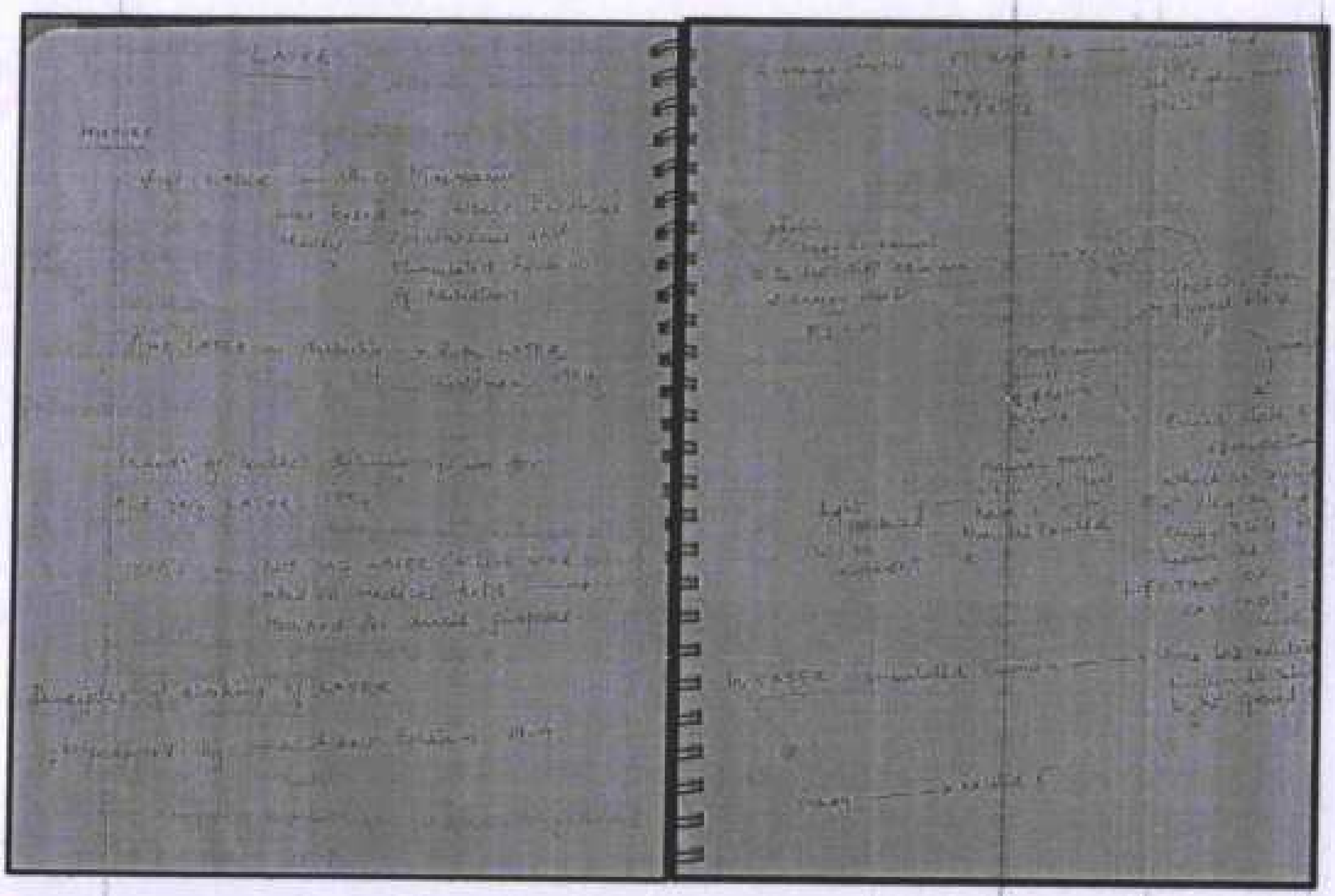
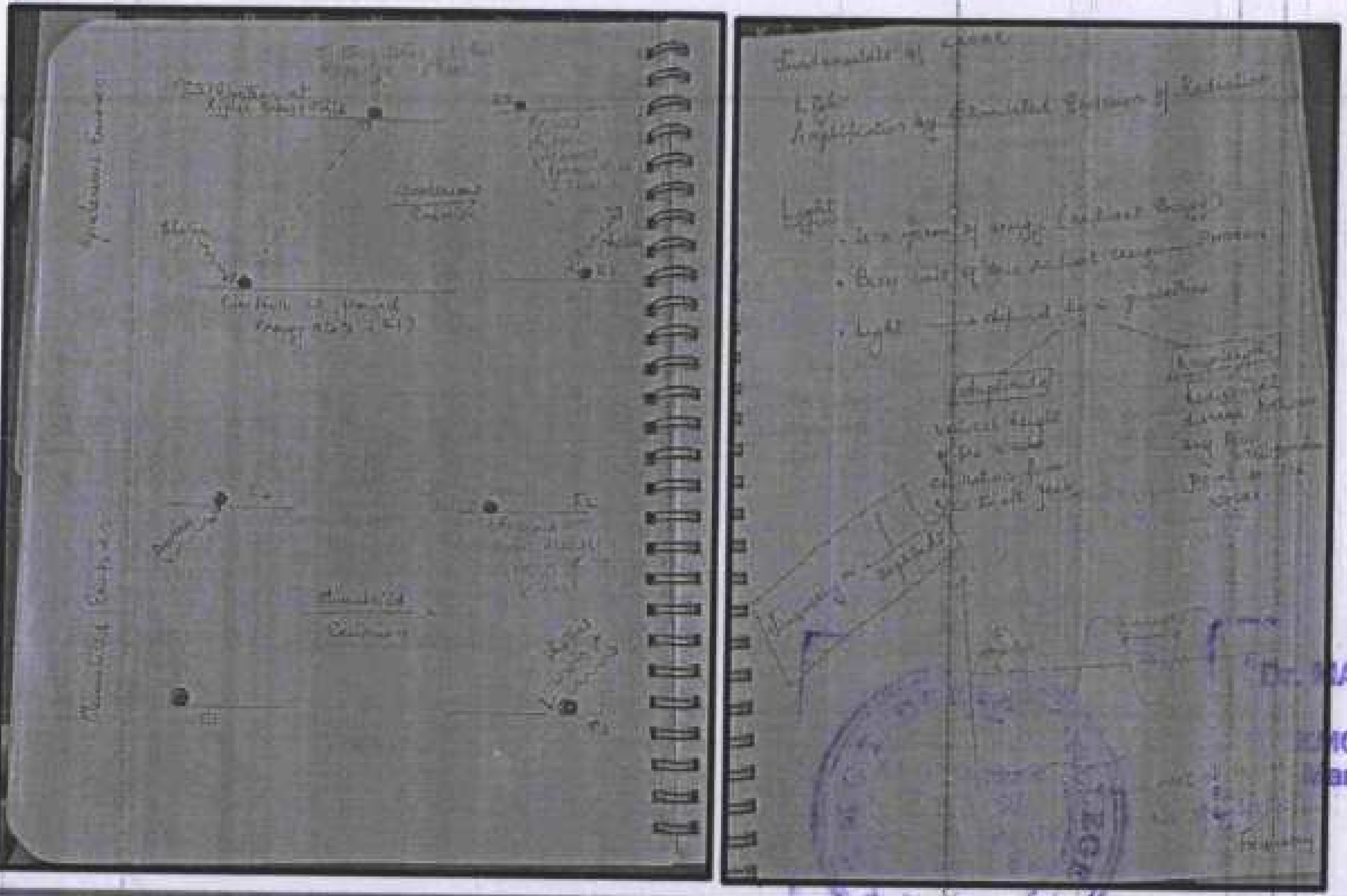
Provision of Special Notes:

- Proficient study materials, with simplified notes and summaries, are provided to slow performers helping them in skilled learning and mastering how to reciprocate the same in exams.





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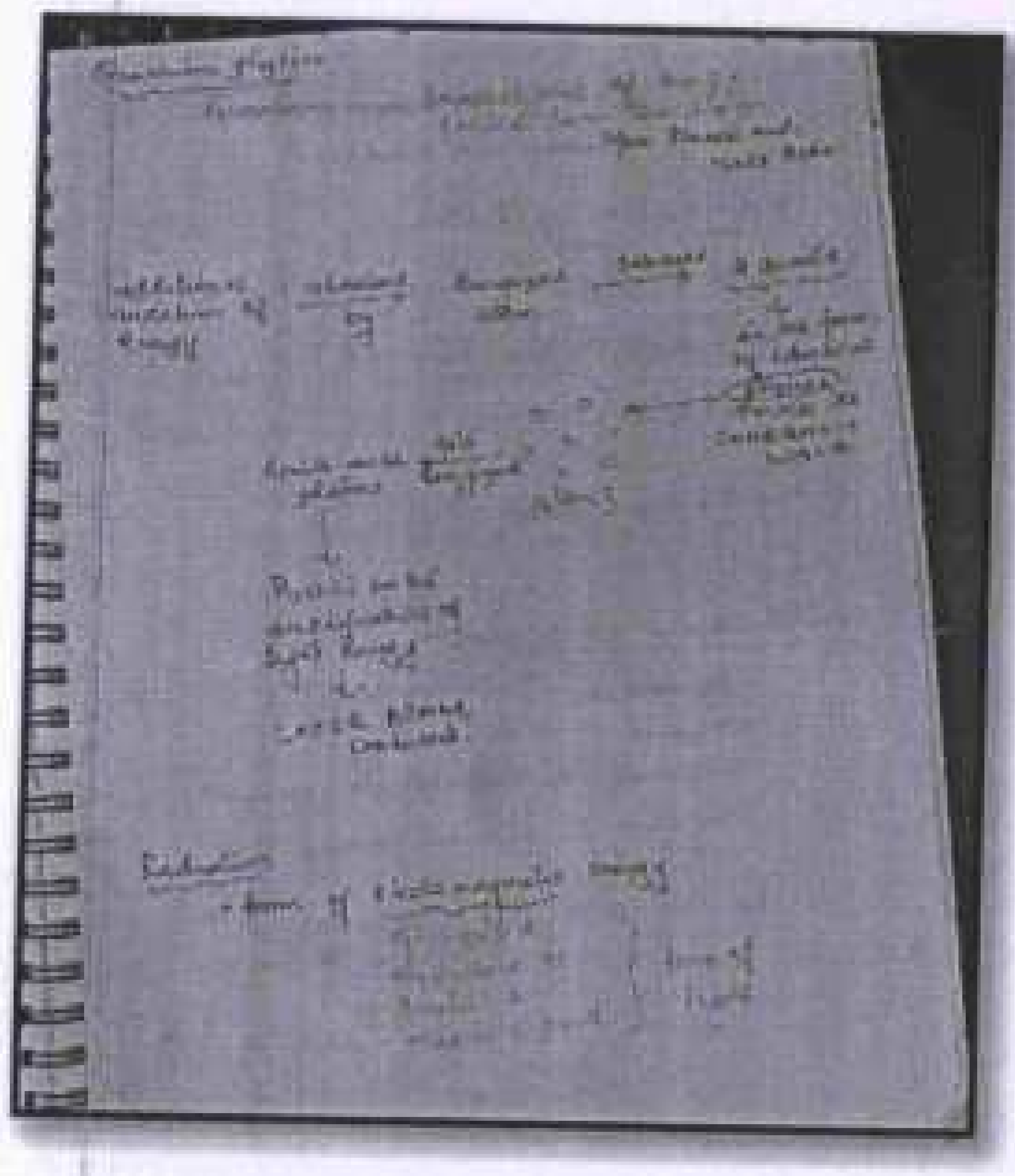

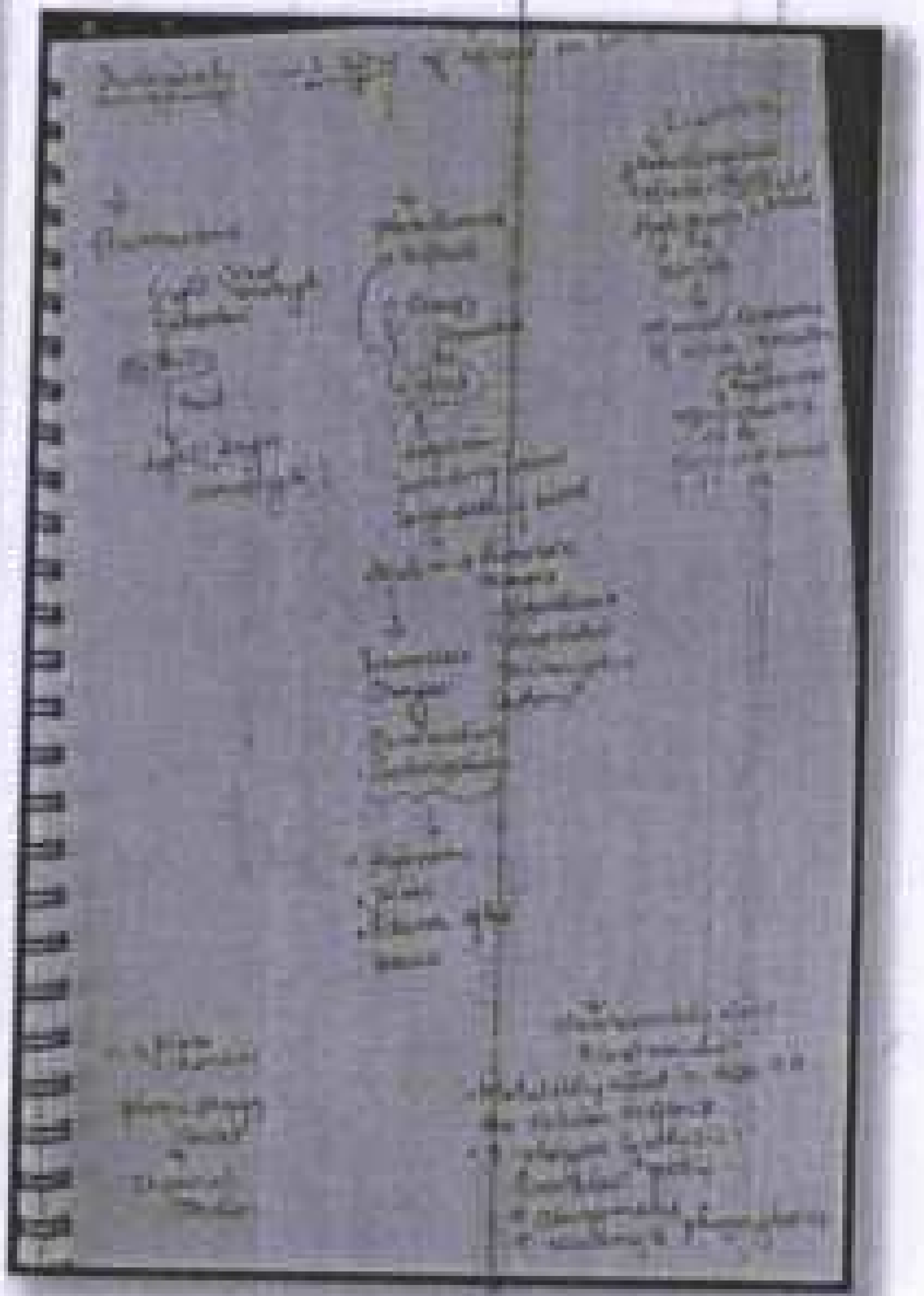

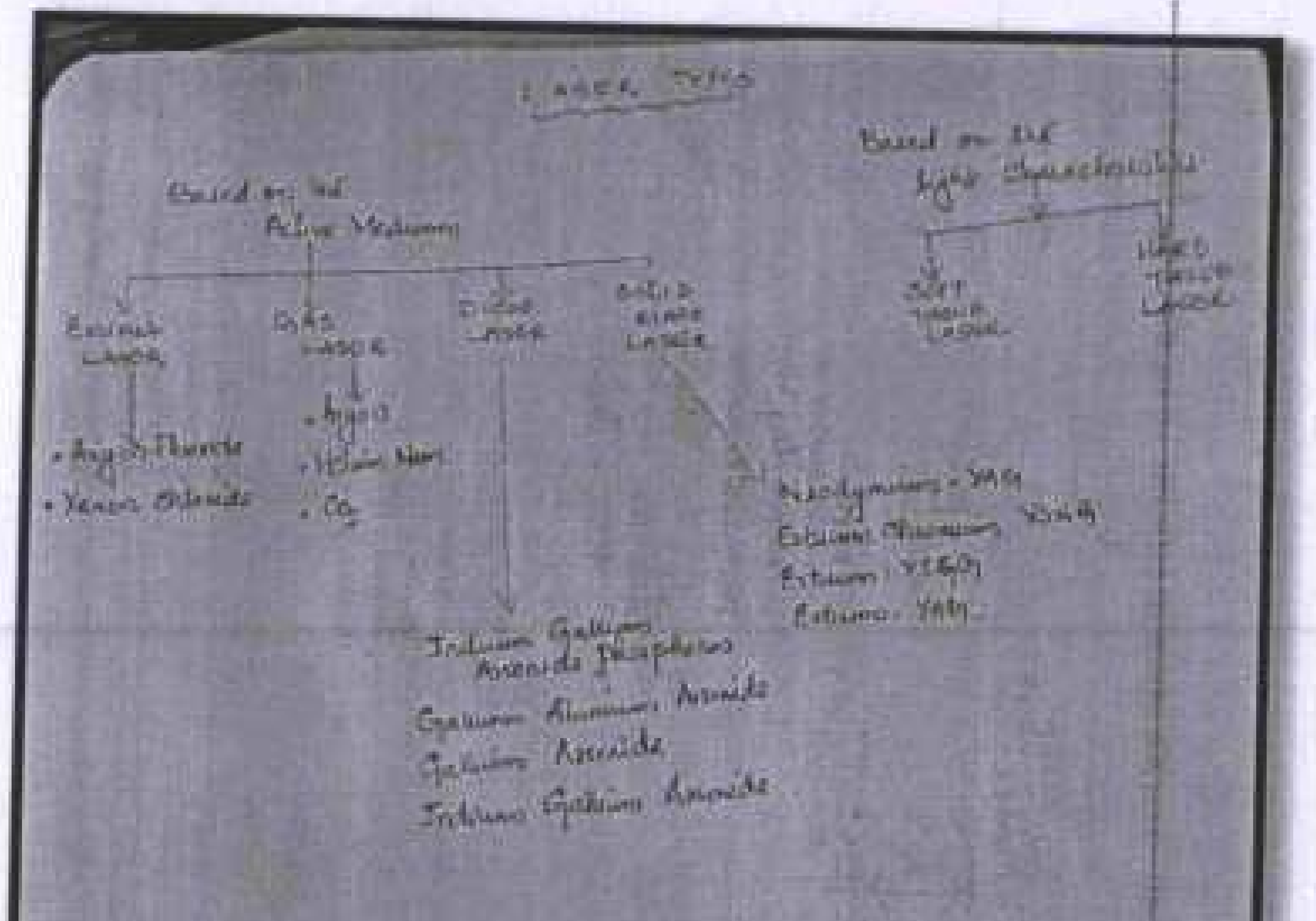

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