

4B.3.2 SYLLABUS (Including Teaching Hours.)

MUST KNOW

Nomenclature Of Dentition:

Tooth numbering systems - A.D.A. Zsigmondy Palmer and F.D.I. systems 01HRS

Principles Of Cavity Preparation :

Steps and nomenclature of cavity preparation

Classification of cavities

Nomenclature of floors & angles of cavities. 07HRS

Dental Caries :

03HRS

Aetiology Types of direct filling gold

Classification and clinical features

Morphological features

Microscopic features

Treatment Plans

Diagnosis and sequel of dental caries

Treatment Planning For Operative Dentistry:

02 HRS

Detailed clinical examination

Radiographic examination

Tooth vitality tests

Diagnosis

Treatment planning

Preparation of the case sheet

Armamentarium For Cavity Preparation:

04 HRS

General classification of operative instruments

Hand cutting instruments design formula

Rotary cutting instruments and dental bur

Mechanism of cutting

Evaluation of hand piece and speed

Current concepts of rotary cutting procedures

Sterilization

Maintenance of instruments.

Basic instrument tray set up

Control of Operating Field:

02 HRS

Light source, Sterilization of field of operation and control of moisture

Rubber dam in detail

Cotton rolls and anti sialogogues

Amalgam Restoration

03 HRS

Indication and contraindication

Physical and mechanical properties

Clinical features

Cavity preparation for Class I , II, V and III.

Step wise procedure for cavity preparation and restoration.

Failure of amalgam restoration

Pulp Protection :

06 HRS

Liners – Calcium Hydroxide
Varnishes and bases
Zinc phosphate
Zinc polycarboxylate
Zinc oxide eugenol
Glass ionomer cements

Anterior Restoration 06 HRS
Selection of cases
Selection of material
Step wise procedures for using restorations.
Glass ionomer, composites including sandwich restorations and bevels of the same with a note on status of the dentine bonding agents.

Preventive Measures In Restorative Practice: 06HRS
Plaque Control
Pit and fissure sealants
Dietary measures
Periodontal health
Contact and contour of teeth
Tooth separation.
Matrices and wedges
Temporization or Interim Restoration 1HR

Pin retained Amalgam Restoration 3HRS
Indication and Contra Indication
Advantages disadvantages
Types of pin
Methods of placements
Use of automatrix
Failure of pin amalgam restoration

Management Of Deep Carious Lesions 02 HRS
Direct Pulp Capping.
Indirect Pulp Capping
Restorative measures

Non Carious Destruction's Tooth Structures 04 HRS
Diagnosis and Clinical Management
Hyper Sensitive Dentine And Its Management

Cast Restorations 05 HRS
Indications
Contra indications
Advantages and disadvantages and materials used for same
Cavity preparation

Gingival Tissue Management For Cast Restoration And Impression Procedures
02HRS

Recent Cavity Modification for Amalgam Restoration	01HRS
Differences between Amalgam And Inlay Cavity preparation	01 HRS
Note on all the types of Bevels used for Cast Restoration	01 HRS
Control Of Pain During Operative Procedure	01HRS
Treatment Planning For Operative Dentistry	02 HRS
Detailed Clinical Examination	
Radiographic Examination	
Vitality Tests	01 HRS
Diagnosis And Treatment Planning.	
Preparation Of Case Sheet	
Applied Dental Materials.	23HRS
Biological Considerations	
Evaluation clinical application and adverse effects of the following Materials	
Dental Cements.	
Zinc oxide eugenol cements	
Zinc phosphate cements	
Polycarboxylates	
Glass ionomer cements	
Calcium hydroxides	
Varnishes	
Dental amalgam	
Technical considerations mercury toxicity mercury hygiene	
Composite, Dentine bonding agents, chemical and light curing composites	
Rubber base Impression Materials	
Nobel metal alloys & non noble metal alloys	
Investment and die materials	
Inlay casting waxes	
Dental porcelain	
Aesthetic Dentistry	04HRS
Anatomy & physiology of smile	
Bleaching of teeth	
Endodontics and introduction	04 HRS
Introduction, definition, scope and future of endodontics	
Clinical diagnostic methods	
Emergency endodontic procedures	
Pulpal diseases	02 HRS
Causes	
Types	
Treatment.	
Periapical diseases	02HRS

Acute periapical abscess
Acute periodontal abscess, phoenix abscess
Chronic alveolar abscess granuloma cysts condensing osteitis
External and internal resorption

Vital pulp therapy 02HRS
Indirect and direct pulp capping, pulpotomy
Different types of medicaments used

Apexogenesis and apexification or problems of open apex. 01HRS

Rationale of endodontic treatment, Objectives, Indication & Contraindications for root canal treatments
01HRS

Anatomy of the pulp cavity 01HRS
Root canals apical foramen
Anomalies of pulp cavities access cavity preparation of anterior and premolar teeth

Principles of root canal treatment 05 HRS
Access cavity preparation.
Root canal instruments
Hand instruments,
Power driven instruments
Standardization
Color coding principle of using endodontic instruments
Sterilization of root canal instruments and materials.
Rubber dam application

Determination of working length 02HRS
Traditional methods
Apex locator

Cleaning and shaping of root canals 02HRS
Irrigating solution
Chemical aids to instrumentation
Chelators

Disinfection of root canal space 02HRS
Intracanal medicaments
Poly antibiotic paste
Grossman's paste.

Methods of cleaning and shaping –principle & objectives 02HRS
Methods – step back technique
Crown down technique

Obturation of the root canal system	03 HRS
Requirements of an ideal root canal filling material	
Obturation methods using gutta percha	
Obturation material	
Cold lateral condensation	
Warm vertical condensation	
Thermoplasticized obturation technique	
Failures in endodontics.	
Root canal sealers	02 HRS
Ideal properties	
Classification	
Manipulation of root and canal sealers	
Problems during cleaning and shaping of root canal spaces (Endodontic mishaps)	-02 HRS
Perforation and its management.	
Broken instruments and its management	
Management of single and double curved root canals.	
Post endodontic restoration	02 HRS
Material used	
Post and core	
Smear layer and Its importance in endodontics and conservative dentistry	01 HRS
Discoloured teeth and its management	02 HRS
Bleaching agents	
Vital and non vital bleaching method	
Traumatic Injuries	03 HRS
Classification	
Management of fractured tooth and root	
Luxated teeth and its management	
Endodontic surgeries	02HRS
Indication contraindications	
Pre operative preparation	
Pre medication	
Surgical instruments	
Techniques apicectomy	
Retrograde filling	
Post operative sequale	
Terphination	
Hemisection	
Radisectomy techniques of tooth reimplantation (both intentional and accidental)	
Endodontic implant	
Root resorption	01 HRS

Emergency endodontic procedures 01 HRS

Lasers in conservative endodontics (introduction only) 01 HRS

Practice management 01 HRS

GOOD TO KNOW

Gnathological Concepts Of Restoration: 02 HRS

Physiology of occlusion

Normal occlusion

Ideal occlusion

Mandibular movements and occlusal analysis.

Occlusal rehabilitation and restoration

Direct Filling Gold Restorations : 02 HRS

Types of direct filling gold

Indications and limitations of cohesive gold.

Annealing of gold foil cavity

Preparation and condensation of gold foils.

Professional association dentist act 1948 and its amendment 1993.

Duties towards the govt. Like payments of professional tax, income tax.

Financial management of practice

Anterior Restorations

Silicate (theory only)

Dental material and basic equipment management.

Ethics

Cast Restorations 03 HRS

Fabrication of wax pattern

Class II and Class I cavity preparation for inlays

Investing

Spruing

Casting procedures

Casting defects

Biological Considerations

Silicate cement

Smart materials

Aesthetic Dentistry 03 HRS

Introduction & scope of esthetic dentistry

Role of the color in esthetic dentistry

Simple procedures (rounding of central incisors to enhance esthetic appearance)

Veneers with various materials

Preventive and interceptive esthetics

Simple gingival contouring to enhance the appearance

Disinfection of root canal space intracanal medicaments 02 HRS
Mummifying agents
Culture methods.

Cleaning and shaping
Newer methods & systems
Rotary endodontics

MTA 01 HRS

4B.3.3 EXAMINATION PATTERN

Exercise	Time allotted	Marks awarded
Journal	NA	05
Class 2 cavity preparation for silver amalgam restoration cavity base and restoration.	85 min	85