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:
Aetiology Types of direct filling gold
Classification and clinical features
Morphological features
Microscopic features
Treatment Plans
Diagnosis and sequel of dental caries 03HRS

Treatment Planning For Operative Dentistry:
Detailed clinical examination
Radiographic examination
Tooth vitality tests
Diagnosis
Treatment planning
Preparation of the case sheet 02 HRS

Armamentarium For Cavity Preparation:
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 04 HRS

Control of Operating Field:
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
Indirect and direct pulp capping, pulpotomy
Different types of medicaments used

Apexogenesis and apexification or problems of open apex.

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

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

Principles of root canal treatment
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
Traditional methods
Apex locator

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

Disinfection of root canal space
Intracanal medicaments
Poly antibiotic paste
Grossman’s paste.

Methods of cleaning and shaping – principle & objectives
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 sequelae
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 :
Types of direct filling gold
Indications and limitations of cohesive gold.
Annealing of gold foil cavity
Preparation and condensation of gold foils.

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

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<thead>
<tr>
<th>Exercise</th>
<th>Time allotted</th>
<th>Marks awarded</th>
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<tbody>
<tr>
<td>Journal</td>
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<td>05</td>
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<tr>
<td>Class 2 cavity preparation for silver amalgam restoration cavity base and restoration.</td>
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