

PEDIATRIC DENTISTRY

PAPER-I: CLINICAL PAEDODONTICS

1. CONSCIOUS SEDATION, DEEP SEDATION & GENERAL ANESTHESIA IN PEDIATRIC DENTISTRY

- Indications and Contraindications
- Pre-treatment Documentation and Assessment
- Techniques of conscious sedation, deep sedation & general anesthesia
- Monitoring of the Patient
- Recovery and Discharge
- Other Drugs
- Synergic & Antagonistic Actions of Various Drugs Used in Children
- Local anaesthesia

2. GINGIVAL & PERIODONTAL DISEASES IN CHILDREN

- Normal Gingiva & Periodontium in children.
- Gingival & Periodontal diseases – Etiology, Classification, Risk factors, Pathogenesis, Systemic effects, Prevention & Management
- Maintenance of oral hygiene in infant and children

3. PEDIATRIC OPERATIVE DENTISTRY

- Principles of operative dentistry
- Restorative materials used in past and present; along with recent advances in tooth-coloured materials.
- Modifications required for cavity preparation in primary and young permanent teeth
- Various isolation techniques
- Restoration of carious primary, young permanent and permanent teeth in children using various restorative materials
- Atraumatic Restorative Treatment
- Various crowns used in pediatric dentistry- (Stainless steel, Zirconia crowns, Pado-strip crowns, Polycarbonate & Resin Crowns / Veneers, fibre post systems etc)

4. PEDIATRIC ENDODONTICS

- Diagnosis of pulpal diseases and their management
- Endodontic treatment for primary teeth- Pulp capping, Pulpotomy, Pulpectomy
- Endodontic treatment for young permanent teeth and permanent teeth -

Pulp capping, Pulpotomy, Pulpectomy, Apexogenesis, Apexification, Regenerative endodontic therapy

- Controversies & recent concepts in pediatric endodontics
- Recent advances in diagnostic aids for assessment of pulpal vitality
- Endodontic instruments (Hand and Rotary) for Primary, young permanent and permanent teeth
- Endodontic irrigants
- Irrigation devices
- Sonic and ultrasonic agitation
- Root canal filling materials for primary teeth
- Recent advances in pediatric endodontics

5. TRAUMATIC INJURIES IN CHILDREN

- Traumatic dental injury- Prevalence, Causes and Predisposing factors, classification, history and examination
- Sequelae & reaction of teeth to trauma
- Traumatic injuries to anterior teeth and its management
- Management of jaw fractures in children
- Sports related dental injuries and its management.

6. INTERCEPTIVE ORTHODONTICS

- Concepts of occlusion and esthetics: Structure and function of all anatomic components of occlusion, mechanics of articulations, recording of masticatory function, diagnosis of Occlusal dysfunction, TMJ anatomy, related neuromuscular physiology and pathology.
- Myofunctional appliances: Basic principles, contemporary appliances: Design & Fabrication
- Fixed and removable orthodontic appliances: Basic principles, contemporary appliances: Design & Fabrication
- Case selection & diagnosis in interceptive Orthodontics (Cephalometrics, Image processing, Tracing, Radiation hygiene, Video imaging & advance Cephalometric techniques)
- Recognition and management of normal and abnormal developmental occlusions in primary, mixed and permanent dentitions in children (Occlusal Guidance)
- Biology of tooth movement: A comprehensive review of the principles of teeth movement. Review of contemporary literature. Histopathology of bone and Periodontal ligament, Molecular and ultra-cellular consideration in tooth movement

- A comprehensive review of the local and systemic factors in the causation of malocclusion
- Space Management:
 - Etiology, Diagnosis of space problems, Space analysis, Biomechanics
 - Objectives, Classification, Requisites
 - Indications and Contraindications
 - Advantages and Disadvantages
 - Space Maintainers and Space Regainers
 - Planned extraction in interceptive orthodontics

7. ORAL HABITS IN CHILDREN

- Definition, Etiology & Classification
- Clinical features of digit sucking, tongue thrusting, mouth breathing & various other oral habits in children affecting oro-facial structure
- Management of oral habits in children

8. DENTAL CARE OF CHILDREN WITH SPECIAL NEEDS

- Definition, Etiology, Classification, Clinical features and behavioural aspects of specially abled children (physically, mentally and medically handicapped child)
- Dental considerations of special children
- Management of infant/children with cleft lip and palate (feeding plate, naso-alveolar moulding, Speech rehabilitation)
- Oral manifestations of Systemic Conditions in Children & their Management
- Acquired immunodeficiency syndrome (AIDS)
- Management of children with genetic disorders

9. MINOR ORAL SURGICAL PROCEDURES IN CHILDREN

- Exodontia
- Minor oral surgical procedures in children for-
 - Frenal abnormalities,
 - Odontogenic infections
 - Cystic lesions in children
 - Odontogenic and non-odontogenic tumors
 - Abnormalities of oral structures
 - Other infections in children

10. DENTAL RADIOLOGY AS RELATED TO PEDIATRIC DENTISTRY

- Oral examination, diagnosis and treatment planning- case history taking

- Principles of Radiographic Examination
- Conventional Intraoral Radiographic Techniques
- Digital Radiography
- Extraoral Radiography

11. PEDIATRIC ORAL PATHOLOGICAL CONDITIONS IN CHILDREN

- Developmental Disturbances of Teeth and Surrounding Structures

12. CONGENITAL ABNORMALITIES IN CHILDREN

- Definition, Classification, Clinical features and Management

13. MEDICAL EMERGENCIES IN CHILDREN

- Vital Signs
- Basic Life Support
- Various medical emergencies and
- Management

14. PROSTHETIC MANAGEMENT IN PEDIATRIC DENTISTRY

15. ADVANCES IN PEDIATRIC DENTISTRY

16. DENTAL MATERIALS USED IN PEDIATRIC DENTISTRY

17. SETTING UP OF PEDODONTIC & PREVENTIVE DENTISTRY CLINIC

18. LASERS IN PEDIATRIC DENTISTRY

PAPER-II:

PREVENTIVE AND COMMUNITY DENTISTRY AS APPLIED TO PEDIATRIC DENTISTRY

1. CHILD PSYCHOLOGY

- Introduction to paediatric dentistry
- Fear, anxiety, apprehension & its management
- Theories of child psychology
- Social and emotional development of child

2. BEHAVIOR MANAGEMENT

- Definitions, Fundamentals of Behaviour Management
- Behaviour Patterns of the Child

- Behaviour Modification/ Guidance Techniques-
- Non- pharmacological and pharmacological behaviour management methods

3. CHILD ABUSE & DENTAL NEGLECT

4. PREVENTIVE PEDODONTICS

- Chair side preventive measures for dental diseases
- Epidemiology of dental caries in India
- Saliva and oral health
- Pit and fissure sealants
- Non-restorative management of dental caries- Silver diamine fluoride
- Caries Vaccine
- Oral hygiene measures
- Dental Health education
- Diet and Dental Caries
- Diet Counselling

5. CARIOLOGY

- Historical background
- Dental Caries- Definition, etiology and classification
- Caries pattern in primary, young permanent and permanent teeth
- Pathogenesis of dental caries
- Caries risk assessment
- Caries activity tests
- Sugar studies
- Diagnosis of dental caries
- Early childhood caries-Definition, Etiology, Pathogenesis, Clinical features, Complications and its management
- Rampant caries
- Role of diet and nutrition in Dental Caries
- Dietary modifications & Diet counselling
- Subjective & objective methods of Caries detection with emphasis on Caries prediction, Caries susceptibility & their clinical Applications

6. DENTAL HEALTH EDUCATION & SCHOOL DENTAL HEALTH PROGRAMMES

- Dental health concepts
- Effects of civilization and environment
- Dental Health delivery system
- Public Health measures related to children along with principles of Pediatric and Preventive Dentistry

7. EPIDEMIOLOGY

- Concepts
- Methods of recording & evaluation of various oral diseases
- Various national & global trends of epidemiology of oral diseases

8. FLUORIDE IN DENTISTRY

Historical background of fluoride

Availability and Physiology and mechanism of fluoride

Systemic fluorides

Topical fluorides

Forms of fluoride

Fluoride toxicity and Management

Fluoride analytical methods

Defluoridation

9. VACCINATION SCHEDULE

10. PROBIOTICS

11. INFECTION CONTROL IN PEDIATRIC DENTISTRY

12. MEDICO-LEGAL CONSIDERATIONS

13. COUNSELLING IN PEDIATRIC DENTISTRY

14. PRINCIPLES OF BIO-STATISTICS & RESEARCH METHODOLOGY & UNDERSTANDING OF COMPUTERS AND PHOTOGRAPHY

PAPER-III: ESSAYS (DESCRIPTIVE AND ANALYZING TYPE QUESTIONS)

The topics assigned to the different papers are generally evaluated under those sections.

However, a strict division of the subject may not be possible and some overlapping of topics is inevitable. Students should be prepared to answer overlapping topics

Any topic from Paper I and paper II can be

MUHS EXAM
SCHEME 1 OF EXAMINATION
MDS Part II

Paper I / Paper II	Total marks 75
Questions	Marks
Long answer	40 marks
Question 1	20 marks
Question 2	20 marks
Short answer	35 marks
Question 1	7 marks
Question 2	7 marks
Question 3	7 marks
Question 4	7 marks
Question 5	7 marks
PAPER III	
ESSAY	75 marks
Question 1	
OR	
Question 2	

MUHS EXAM
SCHEME 2 OF EXAMINATION
MDS Part II

Paper I / Paper II **Total marks 100**

Questions **Marks**

Long answer **50 marks**

Question 1 25 marks

Question 2 25 marks

Short answer **50 marks**

Question 1 10 marks

Question 2 10 marks

Question 3 10 marks

Question 4 10 marks

Question 5 10 marks

PAPER III

ESSAY **100 marks**

Attempt any 2 questions

Question 1 50 marks

Question 2 50 marks

Question 3

SCHEME 3 OF EXAMINATION

MDS Part II

Paper I / Paper II **Total marks 100**

Questions **Marks**

Long answer **60 marks**

Question 1 20 marks

Question 2 20 marks

Question 3 20 marks

Short answer **40 marks**

Question 1 8 marks

Question 2 8 marks

Question 3 8 marks

Question 4 8 marks

Question 5 8 marks

PAPER III

ESSAY **100 marks**

Attempt any 2 questions

Question 1 50 marks

Question 2 50 marks

Question 3