

III BDS PEDIATRIC AND PREVENTIVE DENTISTRY

Teaching hours: Theory: 65 Hours,
Pedodontics and Preventive Dentistry Lectures
Practicals/Clinics: 170 Hours
III Year: 70 Hours
IV Year: 100 Hours
Theory
III Year: 20 Hours
IV Year: 45 Hours

III YEAR PEDODONTICS AND PREVENTIVE DENTISTRY: 20 HOURS

1. Introduction to Pediatric and Preventive Dentistry - Definition, Scope, Objectives and Importance	1hours
2. Growth and Development(will be covered by department of orthodontics also) - Importance of study of growth and development in Pedodontics - Prenatal and postnatal factors in growth and development - Theories of growth and development - Methods to measure growth - Development of maxilla and mandible and age related changes	2 hours
3. Development of Occlusion from birth to adolescence - Mouth of neonate, gumpads - Primary dentition period - Mixed dentition period - Establishment of occlusion - Study of variations and abnormalities	2 hours
4. Dental Anatomy and Histology - Chronology of eruption of teeth - Differences between primary and permanent teeth - Eruption disorders and their management including teething, ectopic eruption, ankylosis - Importance of first permanent molar	2 hours
5. Dental Caries - Diagnostic procedures and caries detection - Caries pattern in primary, young permanent and permanent teeth - Early childhood caries, rampant caries-definition, classification,etiology, pathogenesis, clinical features, complications and management	3 hours

<ul style="list-style-type: none"> - Role of diet and nutrition in dental caries & sugar substitutes - Diet counselling and dirtart modifications - Caries activity tests, caries prediction, susceptibility and their clinical application 	
6. Dental materials used commonly in children and adolescents (outline revision)	1 hour
7. Case history recording - Principles of history taking, examination, investigations, diagnosis and treatment planning	1 hour
8. Pediatric operative dentistry - Principles of operative dentistry - Isolation-importance and techniques - Modifications in cavity preparation and recent cavity designs for primary and young permanent teeth - Atraumatic/ Alternative Restorative Technique (ART) - Other methods of caries removal - Restoration of carious teeth (primary, young permanent and permanent teeth) using various restorative materials like glass ionomers, composites, silver amalgam - Preformed crowns: stainless steel, polycarbonate and strip crowns	5 hours
9. Gingival and periodontal diseases in children - Normal gingival and periodontium in children - Definition. Classification - Aetiology, pathogenesis and management of giggival and periodontal conditions seen in children and adolescents	2 hours
10. Dental radiology as related to Pedodontics	1 hour

IV BDS PEDIATRIC AND PREVENTIVE DENTISTRY

Lectures
Theory
IV Year: 45 Hours

Practicals/Clinics:
IV Year: 100 Hours

IV YEAR PEDODONTICS AND PREVENTIVE DENTISTRY: 45 HOURS

Sl. No.	Subjects	Hours
1.	<p>Child Psychology</p> <p>Definition</p> <p>Importance of understanding child psychology in pedodontics</p> <p>Theories</p> <p>Psychological development from birth through adolescence</p> <p>Dental fear, anxiety and their management, types of cry</p> <p>Application of psychology principles in dental management</p> <p>Psychological disorders including anorexia, bulimia</p> <p>Child Abuse and Neglect</p>	4 hours
2.	<p>Behaviour Management</p> <p>Definition</p> <p>Classification and types of behaviour</p> <p>Factors influencing child behaviour</p> <p>Non-pharmacological management of behaviour</p> <p>Pharmacological management of behaviour:</p> <p>Pharmacological principles in pediatric dentistry-drug dosage formulae</p> <p>Analgesics, anti inflammatory and antibiotics commonly prescribed for children</p> <p>Conscious sedation including nitrous oxide-oxygen inhalation anaesthesia</p>	5 hours
3.	<p>Fluorides</p> <p>Historical background</p> <p>Systemic fluorides-availability, agents, concentrations, advantages and disadvantages</p> <p>Topical fluorides-agents, composition, methods of application both for professional and home use, advantages and disadvantages</p> <p>Mechanism of action and its anti cariogenic effect</p> <p>Fluoride toxicity and its management</p> <p>De fluoridation techniques</p>	4 hours

<p>4. Pediatric Endodontics Principles and diagnosis Classification of pulp pathology Management of pulpally involved primary, young permanent and permanent teeth including materials used and techniques followed Pulp capping Pulpotomy Pulpectomy Apexogenesis Apexification</p>	4 hours
<p>5. Traumatic injuries to teeth Definition Classification Etiology and incidence Management of trauma to primary teeth Sequelae and reaction following trauma to primary teeth Management of trauma to young permanent teeth Prevention of trauma: mouth protectors</p>	5 hours
<p>6. Preventive and Interceptive Orthodontics Definitions Problems seen during primary and mixed dentition periods and their management Mixed dentition analysis Serial extraction Space management</p>	4 hours
<p>7. Oral Habits in children Definition, classification and aetiology of all habits Clinical features of deleterious oral habits including non-nutritive sucking, mouth breathing, non functional grinding, masochistic and occupational habits Management of oral habits in children</p>	4 hours
<p>8. Dental management of children with special needs Definition, classification, aetiology, clinical features, special considerations in the dental management of: Physically handicapping conditions Mentally handicapping conditions Medically compromising conditions Genetic disorders and importance of genetic counselling</p>	5 hours
<p>9. Oral surgical procedures in children Indications and contra indications for extraction Minor surgical procedures in children Knowledge of local and general anaesthesia</p>	2 hours
<p>10. Preventive dentistry Definition, principles and scope</p>	3 hours

Levels and types of prevention Preventive measures: Minimal Intervention Pit and fissure sealants Preventive resin restorations (PRR, CARR) Newer agents available for caries prevention and re mineralization Caries vaccine	
11. Nanodentistry- introduction, principles and technique -an outline	1 hour
12. Dental health education and school dental health programmes	1 hour
13. Importance of Dental Home	1 hour
14. Dental emergencies in children and their management	1 hour
15. Setting up of Paediatric dental practice including ethics	1 hour

PRACTICALS / CLINICS

1. Student is trained to arrive at proper diagnosis by following a scientific and systematic procedure of history taking and examination of orofacial region. Training is also imparted in management whenever possible.
2. In view of the above each student shall maintain a record of work done, which shall be evaluated for marks at the time of university examination.
3. The following is the minimum prescribed work:

Pre-clinical (III Year)

Drawing of individual primary teeth morphology
Preparation of various cavity designs on typhodont teeth and extracted primary and permanent teeth
Fabrication of habit breaking appliances
Clinical exercises (IV Year)
Case History Recording and Treatment Planning
Communication and Management of child patient
Preventive measures - oral prophylaxis, topical fluoride application
Restoration of carious teeth using different materials
Extraction of primary teeth

SCHEME OF EXAMINATION

A. Theory (University written examination) 70 Marks
Distribution of Types of Questions

Type of Questions and Marks	Marks
Long Essay - 2 x 10 Marks	20
Short Essays - 8 x 5 Marks	40
Short Answers - 2 x 5 Marks	10
Total	70

B. Internal Assessment Theory: 10 Marks, Practicals: 10 Marks

C. Clinical: 90 Marks

1. Clinical in Pedodontics and Preventive Dentistry: 60 Marks

- a. Case History, Clinical Examination, Diagnosis and Treatment Planning: 30 Marks
- b. Clinical procedure: 40 Marks
 - i. Oral prophylaxis and topical fluoride application
 - ii. Restoration of decayed tooth
 - iii. Extraction of primary tooth
- c. Overall management of child patient and post-operative instructions: 20 Marks

D. Viva Voce: 20 Marks

Theory - 100	
University written exam:	70
Viva Voce:	20
Internal assessment (written):	10
Total	<u>100</u>

Clinical - 100	
University exam:	90
Internal assessment (written):	10
Total:	<u>100</u>

BOOKS RECOMMENED

1. Dentistry for the Child and Adolescent- Mc Donald
2. Pediatric Dentistry (Infancy Through Adolescence)- Pinkham
3. Clinical Pedodontics- Sidney B.Finn
4. Paediatric Operative Dentistry-Kennedy
5. Behaviour Management- Wright
6. Clinical Use of Fluorides- Stephen H. Wei
7. Textbook of Pediatric Dentistry-Braham Morris
8. Primary Preventive Dentistry-Norman O Harris, Franklin Garcia-Godoy
9. Understanding of Dental Caries-Nikiforuk
10. Textbook and Color Atlas of Traumatic Injuries to the Teeth - J.O Andreason, C.M Andreason
11. Textbook of Pedodontics- Shobha Tandon
12. Handbook of Clinical Pedodontics- Kenneth D