

8.1.2.3

I BDS DENTAL MATERIALS

Sl. No.	Theory - 20 Hrs. Practical - 40 Hrs.	Total 60 Hrs.
1.	Introduction: a. Brief History of the development of the science of Dental Materials b. Aim of studying the subject of Dental Materials. c. Scope and requirements of Dental materials d. Spectrum of materials - Classification Clinical and laboratory applications	01
2.	Structure and behaviour of matter: a. Basic principles - Physical and mechanical properties, Chemical properties, biological properties, rheological properties, thermal properties, light, colour and esthetics. Tarnish and corrosion, surface properties and adhesion, biocompatibility allergy, toxicity, setting reactions. b. Enamel and Dentine and bone. c. Polymers d. Metals and alloys e. Ceramics f. Composites g. Standardisation and assessment of dental materials.	02
3.	Impression materials and duplicating materials: a. Requirements, classification. b. Desirable properties, composition, setting properties, advantages, disadvantages, indications and manipulation of inelastic and elastic materials. (Tray compound, impression compound, Low fusing compound, Impression plaster, Zinc oxide Eugenol impression paste, Non Eugenol paste, Alginate, Agar Elastomeric impression materials) Comparative studies between all.	03
4.	Gypsum products (Detail), die, cast and model materials (including brief account of electroformed dies):	02
5.	Waxes and baseplate materials - Contents, properties, manipulation and uses (Modeling wax, casting wax, boxing wax, utility wax, Sticky wax, impression wax, carding wax, preformed wax patterns)	02
6.	Denture base resins a. Tray materials. b. Temporary base materials - contents, properties, manipulation, advantages and disadvantages.	02

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Sl. No.	Theory - 20 Hrs. Practical - 40 Hrs.	Total 60 Hrs.
	c. Permanent base resins - types, composition, properties and technical consideration (Flasking, packing, curing, deflasking and processing errors) d. Others - Tissue conditioners, soft liners and hard liners.	
7.	Tooth restorative materials - Classification and Ideal properties : a. Dental cements - classification ideal requirements of liners, base and luting cements. Composition, properties, chemistry of setting, manipulation and uses of silicate and silico phosphate cements (in brief), zinc phosphate, zinc polycarboxylate, calcium hydroxide, glass ionomer, modified glass ionomer and resin cement. Comparative studies of mechanical, biological and esthetic properties of all cements.	10
8.	Metals and Alloys - Solidification and microstructure of metals, classification of alloys, relevant physical and mechanical properties, annealing, heat treatment, soldering, welding, fluxes and ant fluxes.	03

Practical Exercises : 40 Hours

II Exercises to be done by each student :

- a. Impression material - 20 hours
Manipulation and making impression and identifying setting time and defects.
(Comparative studies included)
- b. Gypsum products - 20 hours

Recommended Text Books

Name of the Book & Title	Author	Edn	Yr. of Publ.	Publ.'s Name Place of Publ.	Price
Science of Dental Materials	Kennet. J. Anusavice	11th	2007	W.B. Sunder's Company, USA	\$35.00
Notes on Dental Materials	E.C. Combe	06th	1992	Churchill Livingstone, UK	4.95 pounds
Applied Dental Material	John. F. Mc. Cabe	07th	1992	Oxford Blackwell Scientific pub. London	Rs. 320/-
Text Book of Dental Material	Craig. O. Brien	06th	1996	Mosby, USA	\$ 15.00
Restorative Dental Materials	Craig.	11th	2002	Mosby, USA	Rs. 675/-

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II B.D.S PRE-CLINICAL PROSTHODONTICS

THEORY : 25 hrs, PRACTICALS -200 hrs 10 hrs / week]

I. Introduction to Prosthodontics - Scope and Definition	
A. Masticatory apparatus and function: 1. Maxillae & Mandible with & without teeth. 2. Muscles of mastication and accessory muscles of mastication. 3. Brief anatomy of TMJ. 4. Mandibular movements. 5. Functions of teeth.	Must Know 2 hrs
B. Various branches of Prosthodontics and prosthesis: 1. Scope & limitation. 2. Appliances v/s prosthesis. 3. Dental prosthesis v/s non-dental prosthesis.	Must Know 1 hr
C. Effect of loss of teeth: 1. On general health. 2. On masticatory apparatus. 3. Need of replace lost teeth.	Must Know 1 hr
D. Outline of Prosthodontics: 1. Types of Prosthesis. 2. Requirements of prosthesis- Physical, biological, esthetic considerations.	Must Know 1 hr
II. Introduction to components of Prosthesis	
A. Complete Denture Prosthesis: 1. Various surfaces (Border and surface anatomy). 2. Components - Base and Teeth.	Must Know 1 hrs
B. Removable Partial Denture: 1. Classification. 2. Major and minor Connectors. 3. Direct retainers. 4. Rests. 5. Indirect retainers. 6. Denture base. 7. Artificial teeth.	Must Know 2 hrs
C. Fixed Partial Denture: 1. Classification. 2. Retainers.	Must Know 1 hr

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3. Pontics. 4. Connectors.	
III. All related definitions and terminologies from glossary <ul style="list-style-type: none"> • Model • Cast • Impression • Occlusion rim • Temporary denture base • Permanent denture base • Occlusion • Face Bow & Articulator • Jaw relation - orientation, vertical and centric • Christensen's phenomenon • Key of occlusion • Balanced occlusion • Abutment etc... 	Must Know 1 hr
IV. Introduction to mouth preparation - in brief A. Complete Dentures <ol style="list-style-type: none"> 1. General considerations 2. Pre-prosthetic surgery 	Must Know 1 hr
B. Removable partial dentures <ol style="list-style-type: none"> 1. General considerations 2. Occlusal rest preparation 3. Modifying contours of the abutments 4. Guide planes 5. Elimination of undercuts 	Desirable to Know 1 hr
C. Fixed Partial Dentures <ol style="list-style-type: none"> 1. Principles of tooth preparation - in brief 2. Retainers in brief 	Desirable to Know
V. Introduction to all steps involved in fabrication of Prosthesis	Must Know 1 hrs
Clinical Steps in brief and laboratory steps in detail	
Impression Making <ol style="list-style-type: none"> 1. Definition and requirements and types of impressions 2. Various materials used for different impressions 3. Different theories of impression making 	Must Know 2 hrs
Impression Trays <ol style="list-style-type: none"> 1. Definition, classification, materials, advantages and disadvantages 2. Selection of trays 3. Special trays 4. Spacer design 	Must Know 1 hr

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Introduction to jaw relation record 1. Definition and type 2. Temporary denture base - Indications, Advantages, Disadvantages, materials used 3. Occlusion rims - materials, shape, dimensions 4. Clinical procedures of jaw relation recording in brief	Must Know 2 hrs.
Articulators and face bow 1. Basic out line 2. Need for articulators 3. Definition, classification, parts, advantages, disadvantages of articulators 4. Definitions, classification, parts, advantages, disadvantages and purpose of face bow transfer 5. Demonstration of face bow transfer to an articulator on a dummy	Must Know 2 hrs.
Selection of Teeth 1. Various guidelines for selection of teeth including dentogenic concept 2. Arrangement of teeth in detail with various factors of esthetics, overjet, overbite etc.	Must Know 1 hr
Occlusion 1. Balanced Occlusion - need and advantages 2. Various factors of balanced occlusion	Must Know 1 hrs
Try in Procedures 1. Anterior try - in 2. Posterior try - in 3. Waxing, carvin, polishing and final try - in	Must Know 1 hr
Processing Procedures • Flasking • Dewaxing • Packing • Curing • Finishing and polishing of acrylic dentures	Must Know 1 hr
VI. Casting Procedures • Preparation of die • Wax pattern • Investing • Burnout • Casting • Finishing and polishing	Desirable to Know 1 hrs

II BDS

PRACTICAL EXERCISES 200 hours

1. Arrangement of teeth - Must Know
2. Surveying of partially edentulous models and preparing modified master cast - Desirable to Know
3. Preparing of wax patterns spruing, casting and finishing (in batches of students not more than 8)
- Desirable to Know
4. Preparation of plaster models of various preparation of teeth to receive retainers for FPD
- Desirable to Know
5. Prepare wax patterns for minimum of 3 unit FPD and investing, casting and porcelain facing (for Batch of 8 students) - Desirable to Know

Note:

1. Students shall submit one processed denture mounted on an articulator to present on university practical exam along with record book.
2. Exercises of RPD and FPD to be submitted in groups along with the record book.

Scheme of Examination

A. Practical Exercise: (Duration- 3 hrs) : 60 Marks

Arrangement of teeth in class I relation, Waxing, Carving, Polishing

B. University Viva-Voce : 20 Marks

C. Internal Assessment : 20 Marks

RECOMMENDED TEXT BOOKS

Author	Name of the Book & Title	Edn	Yr. of Publ.	Publ.'s Name Place of Publ.	Price
Boucher	Prosthodontic Treatment of Edentulous Patients	XI	1997	Mosby St.Louis, Missouri, USA	\$ 76
Heartwell	Syllabus of Complete Denture	IV	1992	Varghese Publishing House	Rs 595
Tylman	Theory and Practice of Fixed Prosthodontics	VIII	1993	Ishiyaku Euro America Inc. 716, Hanley Industrial Court St. Louis Missouri, USA	\$ 69
Mc Cracken	Removable Partial Denture	VIII	1989	CBS Publishers & Distributors Shadara, Delhi	Rs 350
Skinner	Science of Dental Materials	X	1996	W.B Saunders Company, Philadelphia, USA	\$ 35
Craig	Dental Materials, Properties & Manipulation	VI	1996	Mosby St. Louis Missouri, USA	\$ 35

II BDS PRE-CLINICAL CONSERVATIVE DENTISTRY

Theory : 25 Hours

Sl. No		
1.	Introduction to Conservative Dentistry.	1 hour
2.	Definition, Aim & Scope of Conservative Dentistry & Endodontics	
3.	Classification of Cavities.	1 hour
4.	Nomenclature.	
5.	Various chair side positions.	1 hour
6.	Tooth Numbering.	
7.	Restoration - Definition & Objectives	
8.	Instruments - Classification, Nomenclature, Design, Formula of hand cutting instruments, Care, Grasps and Rests.	4 hours
9.	Rotary Cutting instruments - Burs, Design & use. Various speeds in Cavity preparation.	2 hours
10.	Principles of cavity /Tooth preparation for :	5 hours
	a. Silver Amalgam	
	b. Cast gold inlay	
	c. Composite resins.	
	d. Glass Ionomer	
11.	Matrices, Retainers, Wedges.	2 hours
12.	Separators - different methods of separation.	2 hours
13.	Finishing & polishing of restorations.	1 hours
14.	Management of deep carious lesions - pulp capping and pulpotomy.	3 hours
15.	Access cavity and brief introduction of root canal instruments.	3 hours

PRACTICAL EXERCISES - 200 Hours

Preparation of 1" cube in Plaster of paris - 6 Nos.

Preparation of geometric cavities in the above cubes.

Preparation of Tooth models in plaster and preparation of cavities and restoration with modeling wax.

- a. Incisors - 4 Nos.
- b. Pre-Molars - 2 Nos.
- c. Molars - 8 Nos.

30 Hours

Preparation of Cavities on Typodont and/or Extracted Natural Teeth

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I. CAVITIES	PREPARATION	RESTORATION	
Class I	6 with 2 extensions	4	25 Hours
Class II	5 DO Conventional	8	25 Hours
	5 MO		
	5 Conservative		
	2 MOD (1 Upper molar)	4	15 Hours
	(1 Lower Molar)	1	15 Hours
	3		
Class III	3 on Anteriors	All	15 Hours
Class V	2 on Posteriors	All	15 Hours
		All	15 Hours

II. INLAY PREPARATION :

Class I1

Class II2+1 MOD

To prepare Wax patterns 15 Hours

To prepare wax patterns
and one to be casted

Class V 1 (posterior)

III. CUSPAL PREPARATION : (Demonstration)

IV. a. Pulp capping : Direct/ Indirect on extracted teeth

b. Pulpotomy on extracted posterior teeth

c. Root canal access cavity opening on Upper Central incisor.
(Extracted Tooth)

V. Demonstration of Light cure composite and Glass Ionomer Restorations.

VI. Demonstration of Instrumentation and Obturation of root canal.

VII. Demonstration - Wax pattern, investing, casting, polishing and cementation of cast restoration.

NOTE: The II year student should complete the prescribed quota of work before appearing for final internal assessment for the subject. This should be certified by the Head of the department before the candidate takes up final internal assessment exam.

Scheme of Examination

A. University Practicals : 60 Marks

Practical Exercise No.1 : 10 Marks

Spotters : 10 Nos., Marks : 01 Each, Time : 02 Minutes Each

Spotters

a. Hand instruments used to prepare cavity and restoration

b. Identification of Root Canal Instruments

Practical Exercise No.2 : 50 Marks

Preparation of Class II Conventional Cavity for Silver Amalgam in Maxillary or Mandibular I or II Molar tooth (Typhodont/Natural Tooth)

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Cavity preparation	45 Minutes	25 Marks
Lining and Matrix	15 Minutes	10 Marks
Filling and carving	30 Minutes	15 Marks

B. University Viva-Voce : 20 Marks

C. Internal Assessment : 20 Marks

Total : 100 Marks

TEXT BOOKS RECOMMENDED :

Name of the Book & Title	Author	Edn	Yr. of Publ.	Publ.'s Name Place of Publ.	Price
The Art & Science of Operative Dentistry	Sturdevant	3rd	1997	Mosby, USA	\$ 30.00
Principle & Practice of Operative Dentistry	Charbeneau	3rd	1989	Varghese Publication, Bombay	Rs. 315/-
Endodontic Practice	Grossman	--	1988	Varghese Publication, Bombay	Rs. 323/-

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II Year - BDS DENTAL MATERIAL

	Theory - 60 Hrs. Practical - 200 Hrs.	
1.	Chemistry of synthetic resins used in dentistry.	02
2.	Dental porcelains - types, composition, role played by each ingredient, manipulation, advantages and disadvantages, aluminous, porcelain, castable porcelain, metal fused porcelain, and porcelain repair materials.	05
3.	Tooth restorative materials - Classification and ideal properties : b. Cavity bases, liners and varnishes. c. Restorative resins - Brief history of resins as tooth restorative materials, filled resins (composite resins) - classification, chemistry of setting, composition, properties, uses, manipulation advantages and disadvantages, acid etching, bonding agents (Enamel and dentin bonding systems), Pit and fissure sealants.	12
4.	Direct filling Gold - types, advantages, disadvantages, brief study of manipulation (cold welding).	03
5.	Silver amalgam alloy - Brief history, classification, composition, role played by each ingredient, setting reaction, properties, manipulation and uses, comparative study of all types of silver amalgams Mercury Hygiene and Toxicity	04
6.	Casting gold alloys - Classification, corrosion, contents and role played by each ingredient, indications, white gold, uses.	03
7.	Dental casting investments - (Refractory materials) Classification, composition, setting reaction, manipulation and technical consideration.	03
8.	Casting procedures and casting defects, in general	04
9.	Base metal casting alloys - properties, composition and uses of Co-Cr, St. steel.	04
10.	Materials used in orthodontia - Luting cements, direct bonding agents, St. Steel, properties and gauges of wires of gold, st. steel, Co-Cr and titanium alloys, brackets, sensitization.	06
11.	Abrasives and polishing agents - a. Clinical b. Laboratory.	04

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Sl. No.	Theory - 20 Hrs. Practical - 40 Hrs.	Total 60 Hrs.
12.	Dental implant materials - History, biological properties and different designs.	02
13.	Miscellaneous - a. Infection control b. Artificial tooth material. c. Separating media d. Die spacers e. Tray adhesives f. Petroleum jelly g. Articulating paper h. Pressure indicating paste i. Endodontic materials j. Comparative studies between metallic and nonmetallic denture base. k. Bioglass l. Sprues m. Setting expansion, hygroscopic expansion, thermal expansion n. Dentifrices.	08

Practical Exercises : 200 Hours

I Demonstration of manipulation of all materials for a batch not more than 8 students.

II Exercises to be done by each student:

- a. Manipulation and pouring impressions - identify setting time and working time and working time with reference to proportion, water temp, and spatulation time.
- b. Self-cure and heat cure acrylic resin manipulation and curing.
- c. Cements - manipulation and studying setting time and working time for luting, base & restoration.
- d. Silver Amalgam - manipulation, trituration.

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Scheme of Examination

A. Theory : 70 Marks

Distribution of Topics and Type of Questions :

Contents	Type of Questions and Marks	Marks
Conservative Dentistry Topics	Long Essays 1 x 10 marks	10
Prosthodontics topics	Long Essays 1 x 10 marks	10
Conservative and Prosthetic topics (Four questions from each subject)	Short Essays 8 x 5 marks	40
Orthodontia*	Short Essays 2 x 2 marks	04
Conservative and Prosthetics topics* (Five questions from each subject)	Short Answers 3 x 2 marks	06
	Total	70

B. Viva Voce : 20 Marks

C. Internal Assessment - Theory : 10 marks, Practicals : 10 marks

D. Practicals : 90 Marks

1. Spotters: Identify and write the composition and two important uses:

Spotters - 25 Nos.

Marks - 01 Each

Time - 02 Minutes each - 25 Marks

2. Exercise No. 1 - 20 Marks

Any one exercise of the following:

- Manipulation of impression compound and preparation of a plaster cast of U/L arch.
- Manipulation of alginate impression material and preparation of plaster cast of U/L arch.
- Manipulation of Zinc Oxide Eugenol impression paste, and preparation of cast of U/L arch.
- Manipulation of Rubber Base impression material and preparation of Stone cast

3. Exercise No. 2 - 20 marks

Manipulation of any one of the following Dental Cements.

- ZOE (Luting and Filling consistency)
- Zinc Phosphate Cement (Luting and Base consistency)
- Glass Ionomer Cement Type I/II (Luting/Filling consistency)

d. Polycarboxylate Cement (Luting consistency).

(Cements which are mixed for filling consistency should be filled in the cavity prepared in the extracted natural tooth / typhodont.)

4. Exercise No. 3

- 25 marks

- a. Trituration of Silver Amalgam and Condensation into the cavity prepared in extracted natural tooth/typhodont.
- b. Mixing to heat cure Acrylic resin and recording of time taken for all stages.

Recommended Text Books

Name of the Book & Title	Author	Edn	Yr. of Publ.	Publ.'s Name Place of Publ.	Price
Science of Dental Materials	Kennet. J. Anusavice	11th	2008	W.B. Sunder's Company, USA	\$ 35.00
Notes on Dental Materials	E.C. Combe	06th	1992	Churchill Livingstone, UK	\$ 4.95
Applied Dental Material	John. F. Mc. Cabe	07th	1992	Oxford Blackwell Scientific Pub. London	Rs. 320/-
Text Book of Dental Material	Craig. O. Brien	06th	1996	Mosby, USA	\$ 15.00
Restorative Dental Materials	Craig.	11th	2002	Mosby, USA	Rs. 675

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III BDS ORAL MEDICINE AND RADIOLOGY

THEORY: 20 HOURS
MUST KNOW

PRACTICALS: 70 HOURS

III YEAR ORAL MEDICINE THEORY: 12 HOURS

1. Introduction to Oral Medicine- Definition Scope and Clinical Applications	1 hour
<p>2. Principles of oral diagnosis</p> <ul style="list-style-type: none"> - Definitions. - Importance of diagnosis and various types of diagnosis - Case history and components. - Physical examination methodologies - general examination, extra oral & neck examination , intra oral examination - Concepts of provisional diagnosis, differential diagnosis. - Clinical chair side investigations and radiological investigations, exfoliative cytology; hematological, microbiological, histopathological investigations. - Special investigations --biochemical, sialochemical studies, serology, immunological studies. - Final /confirmed diagnosis. - Formulation of treatment plan & prognosis - Referral for opinions. <p>Examination of swelling, ulcer, erosions, sinus, fistula, pigmented lesions, red and white mucosal lesions, pain, TMJ, and lymphnodes</p> <p>Procedures for post-mortem dental examination; maintaining dental records and their use in dental practice and post mortem identification; jurisprudence and ethics.</p>	3hour
3. Regressive alterations of teeth, Developmental malformations, discoloration of teeth.	1 hour
4. Principles, procedures, and protocol for asepsis, sterilisation, infection control.	1 hour
5. Oral sepsis and its effect on general system. Inflammation- injury, infection and spread of infection, facial space infections, osteoradionecrosis.	1 hour
6. Periapical Diseases, And Diseases Of Dental Pulp, Diagnosis Of Dental Caries, Periodontal Diseases Such As Gingival Hyperplasia, Gingivitis, Periodontitis, Pyogenic Granuloma	1 hour
7. Differential diagnosis of orofacial pain: i. Pain arising from diseases of orofacial tissues like teeth, pulp, gingival and periodontal tissues, mucosa, tongue, muscles, blood vessels, lymph nodes, bone, paranasal sinuses, salivary glands etc.	2 hour

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<p>ii. Pain arising due to CNS diseases: pain due to intracranial and extracranial involvement of cranial nerves. (multiple sclerosis, cerebrovascular diseases, troter's syndrome etc.). Neuralgic pain due to unknown causes: trigeminal neuralgia, glossopharyngeal neuralgia, sphenopalatine ganglion neuralgia, periodic migrainous neuralgia and atypical facial pain.</p> <p>iii. Referred pain: pain arising from distant tissues & organs like heart, spine etc. altered sensations like cocageusia, halitosis.</p> <p>Neuromuscular disorders:</p> <p>i. Nerves: (a) neuropraxia, (b) neurotemesis (c) neuritis (d) facial nerve paralysis including Bell's palsy, Heerfordt's syndrome, Melkerson Rosenthal syndrome and Ramsay Hunt syndrome (e) neuroma (f) neurofibromatosis (g) Frey's syndrome.</p> <p>ii. Muscles: (a) Myositis ossificans (b) Myofacial pain dysfunction syndrome (c) trismus.</p>	
<p>8. Orofacial Pigmentation: Exogenous And Endogenous Pigmentations</p>	<p>1 hour</p>
<p>9. Pharmcotherapeutics : General therapeutic measures- drugs commonly used in oral medicine viz. Antibiotics, chemotherapeutic agents, anti-inflammatory and analgesic drugs, corticosteriods, antiviral drugs, antifungal drugs, antitubercular drugs, antihistamines, immunomodulators, immunosuppressive drugs, sialogogues, antisialogogues.</p>	<p>1 hour</p>

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III BDS ORAL MEDICINE AND RADIOLOGY

Radiology
III YEAR THEORY : 8 Hours

1. Introduction to Oral Radiology -History, origin, Definitions, scope & limitations.	1 hour
2. Basic physics in radiology - Radiographic equipment - Radiographic accessories (film holders, beam directional devices, intensifying screens, extra oral cassettes, grids etc.) - Radiographic image receptors Factors responsible for ideal radiographs: i. KvP and ma of X-ray machine ii. Filters iii. Collimations iv. Intensifying screens v. Grids Faulty radiographs and artefacts in radiographs.	1 hour
- Production of X rays (dark room procedures, composition of developer fixer, safe lighting, processing technique- manual/ automatic, storage of films)	1 hour
- Properties of X rays - Sources of radiation. - Electromagnetic spectrum & types of radiation - Electro physical factors - Collimation, Filtration - Films - Principles of Shadow Casting - Projection Geometry - Object localization techniques	2 hour
3. Principles of Intra oral Radiography, techniques, indications of - IOPA Bitewing, Occlusal radiography - lecture	1 hour
4. Radiographic interpretation - I - Principles, procedures. - Normal radiographic landmarks of jaws & adjacent structures. - Radiographic interpretations & differential diagnosis in dental caries periodontal diseases, periapical disease	2 hour

III BDS ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS

Course Details - III Year B.D.S and IV Year B.D.S

TEACHING HOURS:

Mode of Teaching	III Year B.D.S	IV Year B.D.S
Theory	20 Hours	30 Hours
Clinical	70 Hours	100 Hours
Total	90 Hours	130 Hours

III YEAR B.D.S - COURSE SYLLABUS:

Subject	Hours
1. Introduction, Definition, Historical Background, Aims and Objectives of Orthodontics and Need for Orthodontic care.	1 Hour
2. Growth and Development: In General a. Definition b. Growth spurts and Differential growth c. Factors influencing growth and development d. Methods of measuring growth e. Growth theories (Genetic, Sicher's, Scott's, Moss's, Petrovics, Multifactorial) f. Genetic and epigenetic factors in growth g. Cephalocaudal gradient in growth Morphologic Development of Craniofacial Structures a. Methods of Bone growth b. Prenatal growth of craniofacial structures c. Postnatal growth and development of: cranial base, maxilla, mandible, dental arches and occlusion	6 Hours
3. Functional Development of Dental Arches and Occlusion a. Factors influencing functional development of dental arches & occlusion b. Forces of occlusion c. Wolfe's law of transformation of bone d. Trajectories of forces Clinical Application of Growth and Development	2 Hours
4. Malocclusion - In General a. Concept of normal occlusion	3 Hours

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<p>b. Definition of malocclusion c. Description of different types of Dental, skeletal and functional malocclusion Classification of Malocclusion Principle, description, advantages and disadvantages of classification of malocclusion by Angle and modification, Simon, Lischer and Ackerman and Proffit.</p>	
<p>5. Normal and Abnormal Function of Stomatognathic System</p>	<p>1 Hour</p>
<p>6. Aetiology of Malocclusion a. Definition, importance, classification, local & general aetiological factors b. Etiology of following different types of malocclusion i. Midline diastema ii. Spacing iii. Crowding iv. Cross-Bite: Anterior / Posterior v. Class III Malocclusion vi. Class II Malocclusion vii. Deep Bite viii. Open Bite</p>	<p>3 Hours</p>
<p>7. Diagnosis and Diagnostic Aids a. Definition, Importance and classification of diagnostic aids b. Importance of case history and clinical examination in orthodontics c. Study Models: - Importance and uses - Preparation and preservation of study models d. Importance of intraoral X-rays in orthodontics e. Panoramic radiographs - Principles, Advantages, Disadvantages and uses f. Cephalometrics: Its advantages and disadvantages i. Definition ii. Description and use of cephalostat iii. Description and uses of anatomical landmarks lines and angles used in cephalometric analysis iv. Analysis - Steiner's, Down's, Tweed's, Ricket's E-line g. Electromyography and its use in orthodontics h. Wrist X-rays and its importance in orthodontics</p>	<p>4 Hours</p>

CLINICALS AND PRATICALS IN ORTHODONTICS DURING III B.D.S-70 Hours

PRATICAL TRAINING DURING III B.D.S

1. Basic wire bending exercises Gauge 22 or 0.7mm
 - a. Straightening of wires (4 Nos)
 - b. Bending of equilateral triangle
 - c. Bending of a rectangle
 - d. Bending of a square
 - e. Bending of a circle

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f. Bending of U.V.

2. Construction of Clasps (upper / lower) Gauge 22 or 0.7mm
 - a. $\frac{3}{4}$ clasp (C-Clasp)
 - b. Full clasp (Jackson's Crib)
 - c. Adam's Clasp
 - d. Triangular Clasp

3. Construction of Springs (On upper both sides) Gauge 24 or 0.5mm
 - a. Finger Spring
 - b. Single Cantilever Spring
 - c. Double Cantilever Spring (Z-Spring)
 - d. T-Springs on premolars

4. Construction of Canine retractors Gauge 23 or 0.6mm
 - e. U - loop canine retractor (Upper and lower)
 - f. Helical canine retractor (Upper and lower)
 - g. Buccal canine retractor: - Self supported Buccal canine retractor with
 - i. Sleeve - 5mm wire of 24 Gauge
 - ii. Sleeve - 19 Gauge needle on any one side
 - h. Palatal canine retractor on upper both sides - Gauge 23 or 0.6mm

5. Labial Bow
 - i. Gauge 22 or 0.7mm
 - j. One on both upper and lower

CLINICAL TRAINING DURING III B.D.S

1. Making upper Alginate impression
2. Making lower Alginate impression
3. Study model preparation
4. Model Analysis
 - a. Pont's Analysis
 - b. Ashley Howe's Analysis
 - c. Carey's Analysis
 - d. Bolton's Analysis
 - e. Moyer's Mixed Dentition analysis
 - f. Hakhoba's Analysis

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	1 hours
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

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III BDS PEDIATRIC AND PREVENTIVE DENTISTRY

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<ul style="list-style-type: none"> - Role of diet and nutrition in dental caries & sugar substitutes - Diet counselling and diet 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 gingival and periodontal conditions seen in children and adolescents	2 hours
10. Dental radiology as related to Pedodontics	1 hour


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III BDS PROSTHODONTICS, CROWN AND BRIDGE INCLUDING IMPLANTOLOGY

Teaching Hours:

Clinical: III year: 70 hours
IV year: 300 hours

Theory: III year: 30 hours
IV year: 80 hours

III year Prosthodontics Theory: 30 hours

<p>1. Introduction</p> <ul style="list-style-type: none"> a. Terminology - Definitions - History - Scope in Prosthodontic therapy b. Stomatognathic system, Craniomandibular system (Masticatory apparatus) c. Components of masticatory apparatus - Functions d. Applied Anatomy. Histology & Physiology of the components of mandibular system. e. Applied growth and development including genetics, immunity. f. Reasons for loss of teeth and associated structures. g. Clinic and laboratory - facilities for Prosthodontic therapy (Equipments, instruments, materials). h. Prosthodontic therapy for diseases of craniomandibular system. i. Asepsis and cross infection control in clinic and laboratory. Hospital laboratory waste disposal system and management. <p>Physiology, nutrition, occlusion, occlusal curves, vertical overlap, horizontal overlap, condylar path, saliva, pain and other reflexes. Neuro muscular mechanism and applied psychiatry medicine</p> <p>COMPLETE DENTURE PROSTHESIS</p>	<p>1 hour</p>
<p>2. BIOMECHANICS OF THE EDENTULOUS STATE</p> <ul style="list-style-type: none"> Mechanism of tooth support Mechanism of complete denture support Masticatory load Mucosal support Residual ridge Psychologic effect on retention Functional and Para functional considerations Occlusion Functions: Mastication & swallowing 	<p>2 hours</p>

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Text Books:

Alling John F et al	Impacted teeth
Peterson L J et al	Principles of Oral and Maxillofacial Surgery Vol 1,2 & 3
Srinivasan B	Textbook of Oral and Maxillofacial Surgery
Malamed S F	Handbook of medical emergencies in the dental office
Banks P	Killey's fracture of mandible
Banks P	Killey's fracture of middle third of the facial skeleton
McGovanda	The Maxillary sinus and its dental implication
Seward G R et al	Killey and Kays outline of oral surgery Part I
Mc Carthy F M	Essentials of safe dentistry for the medically compromised patients
Laskin D M	Oral and Maxillofacial Surgery
Howe G L	Extraction of teeth
Howe G L	Minor oral surgery
Peterson I J et al	Contemporary Oral and Maxillofacial Surgery
Topazian R G & Goldberg M H	Oral and Maxillofacial infections

Practical and Clinicals hours

III year BDS : 70 clinical hours.

Students are required to learn the following exercises:

Case history taking
 Examination of the patient
 Recording blood pressure
 Use of different instruments in Oral & Maxillofacial surgery
 Various local anaesthetic injection techniques on patients

Practical and Clinicals Quota

Year	Clinical exercises	Quota	Category
III year BDS:			
	Various local anaesthetic injection techniques on patients	10 cases	must do
	Wiring techniques on models	1 exercise	must do
	Suturing techniques on models.	1 exercise	must do

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III BDS ORAL AND MAXILLOFACIAL SURGERY

Total Theory Teaching hours : 70 hours
Total Practicals/ Clinicals: 270 hours

III year : 20 hours Theory , 70 Clinical hours
IV year : 50 hours Theory , 200 Clinical hours

III year BDS Theory: 20 hours

Lesson No	Topic	Details of the Topic	Duration
1.	Introduction	Definition, Aims & objectives of Oral surgery	1 hour
2.	Diagnosis in oral surgery	History Taking	2 hour
		Clinical Examination	
		Investigations	
3.	Infection control	Principles of infection control	1 hour
		Cross infection , HIV/AIDS and hepatitis	
4.	Local Anaesthesia	Neurology of facial pain Historical aspects, definition, types of LA, indications, contraindications, advantage and disadvantage. Local anaesthetic drugs, Classification Ideal requirements of LA solutions, composition and mode of action Choice of particular mode of anaesthesia Complications of LA, prevention and management. Anaesthesia technique- Mandible Anaesthesia technique- Maxilla	5 hours 2 hours 2 hours
5.	Exodontia	Introduction, indications, contra indication	1 hours
		Methods of extraction	1 hours
		Use of instruments and complications – Prevention and management	2 hours
6.	Medical Emergency		3 hour
7.	Medical Compromised Patients		
Total			20 hours

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<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

Amrutha

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IV BDS ORAL MEDICINE AND RADIOLOGY

Theory: 45 Hours

Practicals : 100 Hours

MUST KNOW

IV YEAR ORAL MEDICINE THEORY: 31 HOURS

<p>1. Acute infections of oral and para oral structures - bacterial, viral, fungal, parasitic including cervico facial lymphadenopathy. Bacterial: Streptococcal, tuberculosis, syphilis, vincent's, leprosy, actinomycosis, diphtheria and tetanus. Fungal: Candida albicans, deep seated fungal infections Virus: Herpes simplex, Herpes zoster, Ramsy Hunt Syndrome, measles, herpangina, mumps, infectious mononucleosis, HIV, hepatitis -B, hepatitis-C Granulomatous diseases: tuberculosis, sarcoidosis, midline lethal granuloma, Crohn's disease and histiocytosis X</p>	<p>2 hour</p>
<p>2. White and red lesions of oral mucosa. White lesions: chemical burns, leukoedema, leukoplakia, fordyce's spots, stomatitis nicotina palatinus, white spongy nevus, candidiasis, lichen planus, discoid lupus erythematosus, oral submucous fibrosis Red lesions: Erythroplakia, stomatitis venenata and medicamentosa, erosive lesions and denture sore mouth.</p>	<p>2 hour</p>
<p>3. Ulcerative lesions : Acute and chronic ulcers. Vesiculobullous lesions of oral mucosa: herpes simplex, herpes zoster, herpangina, bullous lichen planus, pemphigus, cicatricial pemphigoid, erythema multiforme.</p>	<p>2 hours</p>
<p>4. Diagnostic protocol for differential diagnosis of cysts, odontogenic, non-odontogenic and developmental cysts. Cysts of soft tissues : Mucocele and Ranula Cysts of bone : odontogenic and non-odontogenic. Tumors: Soft tissue: Epithelial: Papilloma, Carcinoma, Melanoma. Connective tissue: Fibroma, lipoma, fibrosarcoma. Vascular: Haemangioma, Lymphangioma. Nerve tissue: Neurofibroma, traumatic neuroma, Neurofibromatosis. Salivary Glands: Pleomorphic adenoma, Adenocarcinoma, Warthin's tumor, Adenoid cystic carcinoma. Hard tissue: Non-odontogenic tumors: Odontogenic tumors: Fibro osseous lesions of oral paraoral structures.</p>	<p>2 hours</p>

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<p>5. Oral manifestations of Metabolic disorders:</p> <ol style="list-style-type: none"> i. Porphyria ii. Haemochromatosis iii. histiocytosis, <p>Oral manifestations of endocrinal disorders:</p> <ol style="list-style-type: none"> i. Pituitary: - Acromegaly, Gigantism, hypopituitarism. ii. Adrenal cortex: Addison's disease (hypofunction) Cushing's syndrome (hyper function) iii. Parathyroid glands: Hyperparathyroidism, hypoparathyroidism iv. Thyroid glands: Cretinism(hypothyroidism), myxoedema, hyperthyroidism v. Pancreas: Diabetes. <p>Nutritional deficiency affecting oral cavity: Vitamins: Riboflavin, nicotinic acid, folic acid, vitamin B12, vitamin C (scurvy)</p> <p>Blood disorders:</p> <ol style="list-style-type: none"> i. Red blood cell diseases: iron deficiency anemia, plummer Vinson syndrome, pernicious anemia, thalassemia, sickle cell anemia, erythroblastosis foetalis, aplastic anemia, polycytemia. ii. WBC disorders: Neutopenia, cyclic neutropenia, agrnauocytosis, infectious mononucleosis and leukemias iii. Bleeding & clotting disorders: thrombocytopenia, purpura, haemophilia, Christmas disease and Von Willebrant's disease. 	2 hours
<p>6. Dermatological diseases importance to dentistry:</p> <ol style="list-style-type: none"> i. Ectodermal dysplasia ii. Hyperkeratosis palmoplantaris with periodontopathy iii. Scleroderma iv. Lichen planus including grinspan syndrome v. lupus erythematoses vi. Pemphigus vii. Erythema multiforme viii. Psoriasis. 	2 hours
<p>7. Disease of tongue and tongue in systemic diseases:</p> <p>Aglossia, ankyloglossia, bifid tongue, fissured tongue, scrotal tongue, macroglossia, microglossia, geographic tongue, median rhomboid glossitis, depapillation of tongue, hairy tongue, atrophic tongue, reactive lymphoid hyperplasia, glossodynia, glossopyrosis, ulcers, white and red lesions.</p>	1 hour
<p>8. Concept of pre malignancy, Premalignant lesions and conditions</p>	1 hour
<p>9. Oral Cancer, Etiology and Classification</p> <p>Epidemiology.</p> <ul style="list-style-type: none"> - Screening. - Clinical Features and Clinical staging - Diagnosis. - Laboratory Investigations and Diagnosis. - Immune concepts in Oral Malignancies. - Management Chemotherapy / Radiotherapy. 	2 hour

Amashalkar

10. Diseases of salivary glands: i. Developmental disturbances: Aplasia, atresia and aberration. ii. Functional disturbances : Xerostomia, ptyalism. iii. Inflammatory conditions: Non-specific sialadenitis, mumps, sarcoidosis, heerdfort's syndrome (uveoparotid fever), necrotizing sialometaplasia. iv. Cysts and tumors: Mucocele, ranula, ;pleomorphic adenoma, mucoepidermoid carcinoma. v. Miscellaneous : sialolithiasis, Sjogren's syndrome, mikuliez's disease and sialosis.	1 hour
11. Autoimmune diseases affecting oral cavity	2 hour
12. Allergic: Local allergic reactions, anaphylaxis, serum sickness (local and systemic allergic manifestations to drugs and chemicals) immunological lesions of oral cavity: i. Multiple myeloma ii. HIV clinical manifestations, oppourtunistic infections, neoplasms iii. Thrombocytopenia iv. Lupus erythematosus v. Scleroderma vi. Dermatomyositis vii. Rheumatoid arthritis viii. Recurrent oral ulcerations including behcet's syndrome and reiter's syndfrome.	1 hour
13. Diseases of TMJ : Developmental abnormalities of condyle, rheumatoid arthritis, osteoarthritis, subluxation and luxation, internal derangement of TMJ, myofacial pain dysfunction syndome. Diseases of Bone: Development disorders, anomalies, exostosis and tori, infantile cortical hyperostosis, osteogenesis imperfecta, marfans syndrome, osteoporosis. Miscellaneous- Paget's disease, mono and polyostotic fibrous dysplasia, cherubism,	3 hour
14. Diseases of maxillary sinus	1 hour
15. Oral manifestations of systemic diseases and medical emergency management, cardiac patient,cardias arrest, specific infections, syncope, anaphylaxis. Phsiologic changes: Puberty, pregnancy and menopause.	1 hour
16. Maxillofacial trauma clinical diagnostic protocol	1 hour
17. Psychosomatic diseases, burning mouth syndrome, glossopyrosis glossodynia, orofacial dysaesthesia, cancerophobia., MPDS, taste abnormalities	1 hour
18. Forensic Odontology including radiography in forensic odontology: i. Medicolegal aspects of orofacial injuries ii. Identification of bite marks	1 hour

iii. Determination of age and sex iv. Identification of cadavers by dental appliances, restorations and tissue remnants.	1 hour
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IV BDS ORAL MEDICINE AND RADIOLOGY

MUST KNOW
IV YEAR RADIOLOGY THEORY: 14 HOURS

1. Radiographic interpretation II - Radiographic artifacts.	1 hour
- Radiographic features of common pathologies of jaw bones (cysts , tumors, fibro-osseous diseases, metabolic, endocrine, nutritional blood disorders)	2 hour
- TMJ radiography -	1 hour
2. Biologic effects of radiation and radiation protection	2 hours
3. Principles of radiotherapy- preparation of patient for oral radiotherapy, management of post radiation oral complications	1 hour
4. Principles of extra oral radiography- techniques and indications of maxillary sinus, trauma radiography, cephalometry, various skull projections.	2 hour
5. Contrast radiography- technique and interpretation of Sialography, cystography, arthrography, angiography- lecture.	1 hour
6. Panoramic Radiography	1 hour
7. Advance radiographic techniques- CT scans, PET scans, radionucleide diagnosis, digital radiography, sialography, digital imaging, xeroradiography	1 hour

Clinicals

III & IV year BDS (inclusive)

ORAL MEDICINE

1. Detailed presentation of case histories of (minimum) ten special cases.

RADIOLOGY

1. Taking IOPA for at least 25 cases and processing them.
2. Taking at least 2 Bite wing radiographs and processing them.
3. Interpretation of at least 25 IOPA Radiographs.

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CLINICAL DEMONSTRATIONS

1. Demonstrations of the following radiographic techniques:
 - a. Maxillary and mandibular occlusal view
 - b. Orthopanthamograph
 - c. Lateral cephalogram
 - d. Postero anterior view of mandible
 - e. Paranasal sinus view
 - f. Reverse townes view
 - g. Submentovertex view
 - h. Lateral oblique view for ramus and body of mandible

2. Identification Of The Above Mentioned Radiographs And Their Interpretation

Scheme of Examination

A. Theory (university written examination) 70 Marks

Distribution of Topics and Types of Questions

Contents	Type of Questions and Marks	Marks
a. 1 Question from Oral Medicine b. 1 Question from Radiology	Long Essays 2 x 10 marks	20
a. 4 Questions from Oral Medicine b. 4 Questions from Radiology	Short Essays 8 x 5 marks	40
a. 3 Questions from Oral Medicine b. 2 Questions from Radiology	Short Answers 2x5	10
	Total	70

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

C. Clinicals: 90 Marks

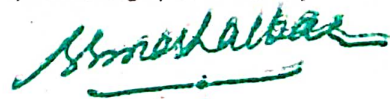
I. Clinicals in Oral Medicine: 60 Marks (recording of Long Case)

- a. Case History taking 30 Marks
- b. Diagnosis & Differential Diagnosis 10 Marks
- c. Investigations 10 Marks
- d. Management 10 Marks

II. Clinicals in Radiology: 30 Marks (One Intra.a-Oral Periapical Radiograph to be taken)

- a. Technique 10 Marks
- b. Processing 10 Marks
- c. Interpretation 10 Marks

- D. Viva Voce 20 Marks
Theory : 100
University written exam : 70



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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 RECOMMENDED:

a. Oral Diagnosis, Oral Medicine, Oral Pathology

1. Burkit - Oral medicine - J.B. Lippincott Company
2. Coleman - Principles of Oral Diagnosis - Mosby Year Book
3. Jones - Oral Manifestations of Systemic Diseases - W. B. Saunders company
4. Mitchell - Oral Diagnosis & Oral Medicine
5. Kerr - Oral Diagnosis
6. Miller - Oral Diagnosis & Treatment
7. Hutchinson - Clinical Methods
8. Shafers - Oral Pathology
9. Sonis. S.T., Fazio.R.C. and Fang. L - Principles and Practice of Oral Medicine
10. Differential diagnosis of oral lesions - Norman wood KW and Paul W. HGoaz 4th edition, 1997, Mosby Philadelphia.
11. Hand book of medical emergencies in dental office by Malamed Stanley 3rd edition 1989, - AITBS, Mosby.
12. Orofacial pains, classification, diagnosis and management by Bell Welden, 4th edition 1989, year book Medical publishers, Chicago.
13. Oral & Marillofacial Injections - Topazian Richard
14. Oral & Marillofacial Pathology - Neville
15. Oral Pathology - Clinical Pathology Carrelation Reglzi

b. Oral Radiology

1. White & Goaz - Oral Radiology - Mosby Year Book
2. Weaheman - Dental radiology - C. V. Mosby Company
3. Stafine - Oral Roentgenographic Diagnosis - W.B. Saunders company
4. Fundamentals of oral medicine and radiology by Bailoor DN and Nagesh KS 1st and 2nd edition 1994, 2001. Contemporary dental publishers
5. Dental Radiography - Principles & Technique - Haring, Howerlow
6. Essentials of Dental Radiography & Radiology - Eevie Whailes

c. Forensic Odontology

1. Derek H. Clark - Practical Forensic Odontology - Butterworth - Heinmann (1992)
2. C. Michel Bowers, Gary Bell - Manual of Forensic Odontology - Forensic Pr.(1995)

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IV BDS ORTHODONTICS AND DENTOFACIAL ORTHOPEDECS

Course Details -IV Year B.D.S

TEACHING HOURS:

Mode of Teaching	IV Year B.D.S
Theory	30 Hours
Clinical	100 Hours
Total	130 Hours

MUST KNOW

IV YEAR - COURSE SYLLABUS:

Sl. No.	Subjects	Hours
1.	General Principles in Orthodontic Treatment Planning of Dental and Skeletal Malocclusions	1 Hour
2.	Anchorage in Orthodontics - Definition, Classification, Types and Stability of Anchorage	2 Hours
3.	Biomechanical Principles in Orthodontic Tooth movement a. Different types of tooth movements b. Tissue response to orthodontic force application c. Age factor in orthodontic tooth movement	2 Hours
4.	Preventive Orthodontics a. Definition b. Different procedures undertaken in preventive orthodontics and their limitations Interceptive Orthodontics a. Definition b. Different procedures undertaken in interceptive procedure c. Serial Extraction: Definition, indications, contra-indication, technique, advantages and disadvantages d. Role of muscle exercise as an interceptive orthodontics	Will Be Covered by Department of Pedodontia
5.	Corrective orthodontics a. Definition, factors to be considered during treatment planning b. Model analysis: Pont's, Ashley Howe's, Bolton, Careys, Moyer's Mixed Dentition Analysis	2 Hours

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<p>c. Methods of gaining space in the arch: - Indications, relative merits and demerits of proximal stripping, arch expansion and extractions</p> <p>d. Extractions in Orthodontics - indications and selection of teeth for extraction</p>	
<p>6. Orthodontic Appliances: General</p> <p>a. Requisites for orthodontic appliances</p> <p>b. Classification, indications of Removable and Functional Appliances</p> <p>c. Methods of force application</p> <p>d. Materials used in construction of various orthodontic appliances - use of stainless steel, technical considerations in curing of acrylic, Principles of welding and soldering, fluxes and antiluxes</p> <p>e. Preliminary knowledge of acid etching and direct bonding</p>	2 Hours
<p>7. Removable Orthodontic Appliance</p> <p>a. Components of removable appliances</p> <p>b. Different type of clasps and their use</p> <p>c. Different type of labial bows and their use</p> <p>d. Different types of springs and their use</p> <p>e. Expansion appliances in orthodontics</p> <p>i. Principles</p> <p>ii. Indication for arch expansion</p> <p>iii. Description of expansion appliances and different types of expansion devices and their uses</p> <p>iv. Rapid maxillary expansion</p>	2 Hours
<p>8. Fixed Orthodontic Appliances</p> <p>a. Definition, Indication and Contraindications</p> <p>b. Component parts and their uses</p> <p>c. Basic principles of different techniques: Edgewise, Begg straight wire</p>	2 Hours
<p>9. Extraoral Appliances</p> <p>a. Headgears</p> <p>b. Chincup</p> <p>c. Reverse pull headgears</p>	1 Hour
<p>10. Myofunctional Appliances</p> <p>a. Definition and principles</p> <p>b. Muscle exercises and their uses in orthodontics</p> <p>c. Functional appliances:</p> <p>i. Activator, Oral Screens, Frankels function regulator, bionator twin blocks, lip bumper</p> <p>ii. Inclined planes - upper and lower</p>	3 Hours
<p>11. Orthodontic Management of Cleft Lip and Palate</p>	2 Hours
<p>12. Principles of Surgical Orthodontics</p> <p>a. Maxillary Prognathism and Retrognathism</p> <p>b. Mandibular Prognathism and Retrognathism</p>	2 Hours

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c. Anterior open bite and deep bite d. Cross bite	
13. Principle, Differential Diagnosis and Methods of Treatment of: a. Midline diastema b. Cross bite c. Open bite d. Deep bite e. Spacing f. Crowding g. Class II - Division 1, Division 2 h. Class III - Malocclusion - True and Pseudo Class III	3 Hours
14. Retention and Relapse Definition, Need for retention, Causes of relapse, Methods of retention, Different types of retention devices, Duration of retention, Theories of retention	2 Hours
15. Ethics	1 Hour
16. Genetic in Orthodontics	1 Hour
17. Computers in Orthodontics	1 Hour
18. Adult Orthodontics in brief	1 Hour

CLINICALS AND PRATICALS IN ORTHODONTICS DURING IV B.D.S - 130 Hours

CLINICAL TRAINING DURING IV B.D.S

1. Case History Training
2. Case Discussion
3. Discussion on the given topic
4. Cephalometric tracings
 - a. Down's Analysis
 - b. Steiner's Analysis
 - c. Tweed's Analysis

PRATICAL TRAINING DURING IV YEAR B.D.S

1. Adam's Clasp on Anterior teeth Gauge 0.7mm
2. Modified Adam's Clasp on upper arch Gauge 0.7mm
3. High Labial bow with Apron spring on upper arch
(Gauge of Labial bow - 0.9mm, Apron Spring - 0.3mm)
4. Coffin spring on upper arch Gauge 1mm
5. Appliance Construction in Acrylic
 - a. Upper and lower Hawley's Appliance
 - b. Upper Hawley's with Anterior bite plane
 - c. Upper Habit breaking Appliance

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- d. Upper Hawley's with Posterior bite plane with 'Z' spring
- e. Lower inclined plane / Catalan's Appliance
- f. Upper Expansion plate with Expansion Screw
- g. Construction of Activator

RECOMMENDED AND REFERENCE BOOKS

1. Contemporary Orthodontics - William R Proffit
2. Orthodontics for Dental Students - White and Gradiner
3. Handbook for Dental Students - Movers
4. Orthodontics - Principles and Practice - Graber
5. Design, Construction and Use of Removable Orthodontic Appliances - C. Philip
6. Adams
7. Clinical Orthodontics: Vol 1 & 2 - Salzmann
Orthodontics - Graber and Swine
8. Textbook of Orthodontics-III Edition, M S Rani, All India
Publishers & Distributors, New Delhi
Dr G V N

SCHEME OF EXAMINATION OF B.D.S (ORTHODONTICS)

Total Theory Marks - 100 Marks

Theory Written Examination -	70 Marks
Vivavoce -	20 Marks
Internal Assessment -	<u>10 Marks</u>
Total	100 Marks

Theory Written Examination- 70 Marks

Type of Questions	Marks	Total
Long Essays - 2	2 x 10	20
Short Essays - 8	8x5	40
Short Answers - 5	5x2	10
Total		70

Clinical Examination - 100 Marks

University Clinical Examination	90 Marks
Internal Assessment -	10 Marks
Total	100 Marks

University Clinical Examination - 90 Marks

Clinical Work	Marks	Total
Spotters - 10 Nos	10 x 3	30
Wire Bending - 3 Exercises a. Labial Bow - b. Adams Clasp c. Fingers Spring / Z Spring	15 Marks 15 Marks 10 Marks	40
Clinical Case Discussion		20
Total		90

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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 Definition Importance of understanding child psychology in pedodontics Theories Psychological development from birth through adolescence Dental fear, anxiety and their management, types of cry Application of psychology principles in dental management Psychological disorders including anorexia, bulimia Child Abuse and Neglect</p>	4 hours
2.	<p>Behaviour Management Definition Classification and types of behaviour Factors influencing child behaviour Non-pharmacological management of behaviour Pharmacological management of behaviour: Pharmacological principles in pediatric dentistry-drug dosage formulae Analgesics, anti inflammatory and antibiotics commonly prescribed for children Conscious sedation including nitrous oxide-oxygen inhalation anaesthesia</p>	5 hours
3.	<p>Fluorides Historical background Systemic fluorides-availability, agents, concentrations, advantages and disadvantages Topical fluorides-agents, composition, methods of application both for professional and home use, advantages and disadvantages Mechanism of action and its anti cariogenic effect Fluoride toxicity and its management De fluoridation techniques</p>	4 hours

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<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

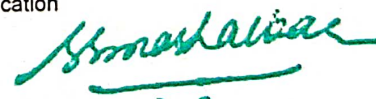
Levels and types of prevention Preventive measures: Minimal Intervention Pit and fissure sealants Preventive resin restorations (PRR, CARR) Newer agents available for caries prevention and re mineralization Caries vaccine	
11. Nanodentistry- introduction, principles and technique -an outline	1 hour
12. 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



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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

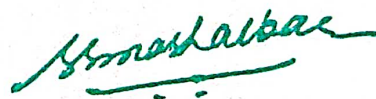
1. Clinical in Pedodontics and Preventive Dentistry: 60 Marks

- 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>



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BOOKS RECOMMENDED

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

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IV BDS PROSTHODONTICS, CROWN AND BRIDGE INCLUDING IMPLANTOLOGY

Teaching Hours:

Clinical:

III year :70 hours

IV year 300 hours

Theory:

III year :30 hours

IV year :80 hours

IV PROSTHODONTICS THEORY: 30 HOURS

Sl. No.	Subjects	Hours
1.	Relating the patient to the articulator Articulators - articulators based on theories of occlusion - articulators based on the type of record used for their adjustment Selection of Articulator for complete dentures - Hanau articulator - Whip mix articulator - Dentatus articulator	1 hour
2.	Selecting artificial teeth for edentulous patient Anterior tooth selection Pre extraction guides size of the anterior teeth form of the anterior teeth The dentogenic concept in selecting artificial teeth Posterior tooth selection Bucco lingual width of posterior teeth mesiodistal length of posterior teeth cervico Occlusal Length of Posterior Teeth types of posterior teeth according to materials types of posterior teeth according to cusp inclines	1 hour
3.	Preliminary Arrangement Of Artificial Teeth Guides for preliminarily arranging anterior teeth Relationship to incisive papilla factors governing the anteroposterior position of the dental arch	1 hour

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<p>Setting Maxillary anterior teeth in wax for try in Importance of proper Anteroposterior positioning of the anterior teeth Setting mandibular anterior teeth in the wax for try in Horizontal overlap Preliminary arrangement of Posterior teeth Orientation of occlusal plane tentative buccolingual position of the posterior teeth tentative arch form of the posterior teeth Setting posterior teeth for try in guidelines for centric occlusion esthetics and leverage</p>	
<p>4. Perfection and verification of jaw relation records Verifying Vertical Dimension Verifying the centric relation Intraoral observation of intercuspation . Intraoral interocclusal records Extra oral articulator method Creating Facial And Functional Harmony With Anterior Teeth Anatomy of natural appearance and facial expression normal facial landmarks maintaining facial support and neuromuscular balance Basic guides to developing facial and functional harmony preliminary selection of the artificial teeth horizontal orientation of the anterior teeth vertical orientation of the anterior teeth phonetics in the orientation of the anterior teeth inclination of the anterior teeth harmony in the general composition of anterior teeth refinement of individual tooth positions concept of harmony with sex personality and age of the patient correlating esthetics and incisal guidance Patient acceptance of arrangement of anterior teeth</p>	1 hour
<p>5. Completion of the try in : Eccentric Jaw relation adjustment, establishing the posterior palatal seal Protrusive and lateral relations Controlling factors of movement Eccentric relation records Establishing the posterior palatal seal Arranging posterior teeth for functional harmony Importance of occlusion Maintenance of the arches Maintenance of occlusal harmony differences in artificial occlusion and natural occlusion rational for arranging posterior teeth in Temporomandibular joint disturbances Factors of Centric occlusion Critical components in arranging posterior teeth Laws protrusive occlusion</p>	2 hours

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Laws of lateral occlusion
 Occlusal schemes used in complete dentures for the edentulous patients
 - Anatomic teeth
 - Non anatomic teeth
 - Other tooth forms
 Techniques for arranging cusped teeth in Balanced occlusion
 techniques for arranging cusplless teeth in occlusion.
Appearance and Functional Harmony of Denture Bases
 materials used for denture bases
 - Acrylic Resin
 - Metal
 formation and preparation of the mold packing the mold
 preserving the orientation relations
 construction of remounting casts
 completing the rehabilitation of the patient
 dentists evaluations
 patients evaluations
 friends evaluations
 elimination of basal surface errors
 errors in occlusion
 interocclusal records for remounting dentures
 interocclusal record of centric relation
 remounting the mandibular denture
 verifying centric relation
 Phonetics - Production of voice and Articulation of sounds
 Position of teeth and phonetics
 Neutral, Zone, Relief
 Processing errors - Reasons and care
 Selective grinding
 Remount and correction of occlusal discrepancies
 Prosthesis - Insertion

6. Patient instructions , after care and recall and management of patient complaints

protrusive inter occlusal record
 alternative use of plaster inter occlusal records
 advantages of balanced occlusion in complete dentures
 special instructions to the patient
 - individuality of patients
 - appearance with new dentures
 - mastication with new dentures
 - speaking with new dentures
 - oral hygiene with dentures
 Maintaining the comfort and health of the oral cavity in a rehabilitated edentulous patient
 Post Insertion Adjustments
 - adjustments relaxed to the occlusion
 - adjustments relaxed to the Denture bases
 - subsequent oral examinations and treatments

1 hour

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<p>7. Rehabilitation of the partially edentulous patients (overdentures) tooth-supported complete dentures - indications and contraindications for over dentures - selection of abutment teeth - clinical procedures</p>	<p>1 hour</p>
<p>8. Immediate Denture Treatment - indication for immediate dentures - contraindications to immediate denture service - delayed and transitional dentures - treatment planning - clinical procedures - waxing and flasking - preparation of the surgical template - processing occlusal correcting, and final preparation of the immediate dentures - surgery and the insertion of the dentures - postoperative patient instructions - perfecting the occlusion - subsequent service for immediate dentures Single complete dentures opposing natural teeth - maxillary single dentures - clinical and laboratory procedures - subsequent problems with single dentures against natural teeth - mandibular single dentures - supplemental prosthodontic procedures for the edentulous patient</p>	<p>2 hours</p>
<p>9. Relining or Rebasing of Complete Dentures - treatment rationale - diagnosis - clinical procedures Static impression technique closed and open mouth relines/rebases - functional impression technique - chair side technique Repair of Complete Dentures And Duplication Of Casts - Maxillary and mandibular fracture repair - repairs using cold-curing resin - duplication of casts - reversible hydrocolloid technique - irreversible hydrocolloid technique</p>	<p>2 hours</p>
<p>10. Osteo Integrated Supported Prosthesis (Dental Implants) For The Edentulous Patient - maladaptive denture behavior - use of dental implants - patient considerations - tissue integration in the edentulous patient Management of japer-plastic ridges - Atrophied flat mandibular ridges in complete denture prosthesis therapy</p>	<p>1 hour</p>

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Geriatric Dentistry: Management of aged, senior citizens, physically, mentally handicapped patients	
REMOVABLE PARTIAL DENTURE PROSTHESIS	
11. 1. Introduction and scope 2. Terminology 3. Classifications 4. Examination, diagnosis and treatment planning 5. Components of removable partial dentures and their functions	3 hours
12. Major connectors Mandibular Major connectors Maxillary Major connectors	2 hours
13. Minor connectors Functions Form and location Tissue stops Finishing lines. reaction of tissues to metallic coverage form of occlusal rests and rest seats	1 hour
14. Rests and rest seats Interproximal occlusal rest seats Internal occlusal rests Incisal rests and rest seats Lingual rests on canines and incisor teeth Possible movements of partial denture Support for rests	1 hour
15. Direct retainers Internal attachments Extra coronal direct retainers Relative uniformity of retention Criteria for selecting a given clasp design Basic principles of clasp design Designs of clasps	3 hours
16. Indirect retainers Denture rotation about an axis Factors influencing effectiveness of indirect retainers Auxiliary functions of indirect retainers Forms of indirect retainers Auxiliary occlusal rests Canine extensions from occlusal rests Canine rests Continuous bar retainers and lingual plates	2 hours

<p>Modification areas Rugae support Direct indirect retention Denture base considerations Tooth supported partial denture base</p>	
<p>17. Distal extension partial denture base: Functions of denture bases Methods of attaching denture bases Ideal denture base material Advantages of metal bases Methods of attaching artificial teeth Need for relining</p>	1 hour
<p>18. Impression materials and procedures for removable partial dentures Rigid materials thermoplastic materials elastic materials impressions of the partially edentulous arch individual impression trays support for distal extension removable partial dentures - factors influencing the support of distal extension bases method for obtaining functional support for distal extension base</p>	3 hours
<p>19. Surveying Description of a dental surveyor Purposes of a surveyor Factors that determine path of placement and removal Step by step procedures in surveying a diagnostic cast Final path of placement Recording relation of cast to surveyor Surveying the master cast Measuring retention and balancing of retention Influence of survey line in designing of clasps Blocking out the master cast Relieving the master cast Paralleled block out. shaped block out, arbitrary block out and relief Preparation of the mouth for removable partial denture Oral surgical preparation Conditioning of abused and irritated tissues Periodontal preparation Periodontal diagnosis and treatment planning Initial disease control therapy Definitive periodontal therapy</p>	3 hours

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<p>Recall and maintenance Advantages of periodontal therapy Preparation of abutment teeth Classification of abutment teeth Sequence of abutment preparation on sound enamel Abutment preparation using conservative restorations Abutment preparation using crowns Splinting of abutment teeth Use of isolated teeth as abutment Missing anterior teeth Temporary crowns when a partial denture is being worn Fabricating restorations to fit existing denture retainers</p>	
<p>20 Occlusal relationship for removable partial denture difference in natural and artificial occlusion desirable occlusal contact relationship for removable partial denture method for establishing occlusal relationship materials for artificial posterior teeth establishing jaw relation for mandibular removable partial denture opposing a maxillary complete denture laboratory procedures duplicating a stone cast waxing the partial denture framework anatomic replica pattern spruing, investing, burnout, casting and finishing of the partial denture framework making record base occlusal rims making a stone occlusal template from a functional occlusal record arranging posterior teeth to an opposing cast types of anterior teeth waxing & investing the partial denture before processing the acrylic resin base processing the denture remounting and occlusal corrections to an occlusal template polishing the denture work authorization for removable partial denture work authorization definitive instructions by work authorization Legal aspects of work authorization Relining and rebasing the removable partial denture Relining tooth support - supported denture base Relining distal extension denture base Method of reestablishing occlusion of a relined partial denture</p>	<p>3 hours</p>
<p>21. Stress breakers Types of stress breakers Advantages of stress breakers Disadvantages of stress breakers Advantages of a rigid design Disadvantages of a rigid design Stress breaking principles Principles of removable partial denture design Biomechanical considerations Other factors influencing Differentiation between two main types of removable partial dentures Essentials of partial denture design Components of partial denture design Additional considerations influencing design</p>	<p>1 hour</p>

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22. Repair and additions to removable partial denture Broken clasp arms Fractured occlusal rests Distortion or breakage of other components Loss of teeth not involved in the support or retention of the restoration Loss of an abutment tooth necessitating its replacement and making a new direct retainer Other types of repair Repair by soldering	2 hours
23. Temporary removable partial denture Appearance Space maintenance Reestablishing occlusal relationships Conditioning teeth and residual ridge Conditioning the patient for wearing a prosthesis	2 hours
24. Removable partial denture considerations in maxillofacial prosthodontics - 1 Maxillofacial Prosthodontics Intraoral prosthesis design considerations Maxillary prosthesis Mandibular prosthesis Treatment planning Framework design Class I resections Class II resections Mandibular flange prosthesis	1 hour
ELEMENTS OF FIXED PROSTHODONTICS (CROWN AND BRIDGE PROSTHESIS)	
25. Introduction and definitions. Terminologies Indication and contraindications	2 hours

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26. Examination, diagnosis and treatment planning and radiological interpretations.	1 hour
27. Selection and choice of abutment teeth	1 hour
28. Biomechanical principles of tooth preparation Preservation of tooth structure Retention and resistance form Structural durability of the restoration Marginal integrity Preservation of the periodontium Finish lines and the periodontium Occlusal bevels Flares Gingival finish lines Preservation of the periodontium Instrumentation Water air cooling Armamentarium	3 hours
29. Full veneer crowns Maxillary and mandibular posterior three quarter crowns Anterior three quarter crown Pin modified three quarter crowns Seven eighths crown Proximal half crowns Inlay MOD onlay	3 hours
30. Anterior/ posterior porcelain fused to metal crowns All ceramic crowns Preparation modifications for damaged teeth Modifications for damaged vital teeth Conversion of defects into retentive features Solution to common problems	3 hours
31. Endodontically treated tooth Preparation modifications for special situations Preparation for fixed bridge abutment Preparation for removable partial denture abutments	3 hours
32. Isolation of working field and temporary protections of prepared tooth Gingival retractions and impression procedures. Construction of DIES of working models, direct and indirect technique. Techniques of fabrication of retainers and materials used, its application with reference to esthetics.	3 hours
33. Selection and fabrication of pontics and esthetics. Connectors, stress - breakers and assembly of fixed bridges.	3 hours

Finishing, cementing and maintenance of crowns and bridges Laser and high speed.	
IMPLANTS	
34. Osseo integrated - Supported prosthesis. Introduction and scope advantages and disadvantages. Classification Applied material science, patient Evaluation pre-surgical preparation treatment plan, applied Linical, surgical and Laboratory Procedure . Osseointegrated supporting prosthesis occlusion, esthetics, insertion and maintenance. Examination, diagnosis and treatment planning and other clinical and Laboratory procedures	5 hours
35. Maxillofacial Prosthesis Restoration of congenital and acquired oral and para-oral Defects. (Facial Prostheses, including implant support Maxillo Facial prosthesis). Splints Obturator Carriers Bruxism and management of occlusal attrition	5 hours
36. Miscellaneous Patient and practice management in Prosthodontic clinic Ethics, Law, Jurisprudence an Forensic Odontology - in Prosthodontic practice Assistants - Laboratories and clinic Communication methods - Technician work Authorization, methods and legality	5 hours
37. Emergencies in Prosthodontics During impression recording in Partially, Completely Edentulous Situation and Maxillofacial Defects. Precautions and management of traumatic accidents in tooth preparation use vasoconstrictor in anaesthetic solutions and retraction cords. ill fitting dentures Broken clasps, facings Broken prosthesis Swallowing Prosthesis General Management of elderly and C.V.S. and immuno compromised patients.	2 hours

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CLINICAL ASSIGNMENTS

III & IV BDS

1. Treatment for completely edentulous patients- 3 Patients
2. Treatment for Partially Edentulous Patients
- Provisional R.P - 5.D
(Minimum one for each Kennedy's classification)
3. F.P - preparation of crown - anterior and posterior, one each.D.
4. Relining & Rebasing, Repair - 1 each.
5. Immediate denture - 1
6. Single denture -1

Demonstrations of Clinical and Laboratory procedures for :

3- Unit Fixed Partial Denture, Maxillofacial prosthesis, Obturators and implant supported prosthesis.

SCHEME OF EXAMINATION

- a. **THEORY**(university written examination) 70 marks
Distribution of topics and types of questions.

Contents	Type of questions & marks	Marks
One long essay from complete denture One long essay from removable partial denture/fixed partial denture	Long essays 2x10 marks	20
3 short essays from complete denture 3 short essays from removable partial denture 2 short essays from fixed partial denture	Short essays 8x5 marks	40
2 short answers from complete denture 1 short answer from removable partial denture 2 short answers from fixed partial denture	Short answer 2x5 marks	10
	Total	70

B. Internal assessment theory: 10 marks, practicals:10 marks.

C. CLINICALS:90 marks

- i. Case history 10 marks
- ii. Complete denture exercise 50 marks
- iii. RPD Designing or Tooth Preparation on Typhodont- 20 Marks

D. Viva-voce 20 marks

Theory- 100
University written exam- 70
Viva-voce- 20
Internal assessment (written)-10
Total- 100
Clinical-100
University exam-90
Internal assessment(written) 10
Total- 100

TEXT BOOKS AND REFERENCE BOOKS

	Author	Name of the Book & Title	Edn.	Yr. of Publ	Publisher's name
1.	Boucher	Prosthetic Treatment of Edentulous Patients	XI	1997	Mosby St. Louis, Missouri, USA
2.	Heartwell	Syllabus of Complete Denture IV		1992	Varghese Publishing House Hind Rajasthan Building Bombay, India
3.	Rosenstiel	Contemporary Fixed Prosthodontics	III	2001	Mosby, St. Louis, Missouri, USA
4.	Sharry	Complete Denture Prosthetics	---	---	---
5.	Shillingburg	Fundamentals of Tooth Preparation	I	1987	Quintessence Publications 551 North Kimberly Drive, Carol Stream, IL-60188-1881
6.	Tylman	Theory and practice of Fixed Prosthodontics	VIII	1993	Ishiyaku EuroAmerica, Inc .. 716, Hanley Industrial Court, St. Louis Missouri, USA

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23.	Microsurgery	Periodontal Microsurgery in brief, Electrosurgery, cryosurgery	1
24.	Splints	Periodontal splints - purpose, classification- principles of splinting	1
25.	Trauma from Occlusion (TFO)	definition, types, histopathological changes, role in periodontal disease, measures of management	1
26.	Implants	Definition, Types, Scope, biomaterials used. Periodontal considerations such as implant-gingiva and implant-bone interface. Implant failure. Peri-implantitis and management. Advanced surgical techniques	3
27.	Periodontal medicine	PDL infection associated with various systemic Diseases.	1
28.	Host modulation therapy	Principles, Agents used	1
29.	Lasers	Lasers in periodontal therapy	1
30.	Supportive periodontal therapy	Definition, Rationale. Patient Classification Factors affecting S P T; Implant maintenance	1
31.	Pharmacotherapy	Periodontal dressings ; antibiotics and antiinflammatory drugs - local drug delivery	1
32.	Pulpo-periodontal Lesions	Pulpo-periodontal involvement - Routes of Spread of infection management	1
33.	Evidence based decision making	Assessing evidence, implementing evidence based decisions in clinical practice	1
34.	Patient management	Ethical, legal and practical issues in the management of periodontal patients	1

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Tutorial (During Clinical Posting)

1. Third year tutorial topics
2. Diagnosis of periodontal disease
3. Determination of prognosis and treatment plan
4. Radiographic interpretation and lab investigation
5. Ultrasonic instrumentation
6. Principles of periodontal surgery
7. Periodontal surgical procedures and suturing techniques
8. Concepts of subgingival irrigation and LDD
9. Occlusion, correction & management
10. Splinting techniques in Periodontics

Desirable to Know

1. Immunology- current concepts of host response
2. Applied periodontal microbiology
3. Advanced diagnostic techniques
4. Regeneration
5. Application of microsurgery and LASERS in periodontics
6. Implants

Teaching Hours: Theory - 80 Hours III BDS - 30 Hours; IV BDS - 50 Hours
Clinical work and case discussion (III BDS & IV BDS)

25 Detailed Case History And Discussion	75 Hours
50 Oral Prophylaxis- 40 handscaling, 10 ultrasonic	150 Hours
Demonstration of all Surgical Procedures	30 Hours
Maintenance Therapy	30 Hours
Total	285 Hours



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7	Jhonston	Modern practice in Fixed Prosthodontics	--	--	--
8.	Mc Giveney Glen P	MC Cracken's removable Partial Prosthodontics	9th	1995	Mosby
9.	Shillingburg	Fundamentals of Fixed Prosthodontics	III	1997	Quintessence Publications 551, North Kimberly Drive, Carol Street, IL
10.	Stewart	Clinical Removable Partial Prosthodontics	II	1997	All India Publishers & Distributors
11.	Skinner	Science of Dental Materials	X	1996	W.B. Saunders Company, Philadelphia, USA
12.	Craig	Dental Materials, Properties & Manipulation	VI	1996	Mosby, St. Louis Missouri, USA
13.	Combe	Notes on Dental Materials	VI	1992	Churchill Living stone, NY, USA
14.	Carl Misch	Contemporary Implant Dentistry	--	--	--
15.	Branemark	Tissue Integrated Prosthesis	--	--	--
16.	Bernard G. N. Smith	Dental Crowns and Bridges: Design and preparation	--	1986	--
17.	A.A. Grant / W Johnson	Removable Denture Prosthodontics	2nd	--	--
18.	Dr. Sybille K. Lechner, Prof. A. Roy, Mc Gregor	Removable Partial Prosthodontics	2nd	--	--
19.	Grant Heath Mc Cord	Complete Denture	--	--	Wolfe Publishing Europe
20.	George F. Kantorowicz	A Clinical Handbook Inlays, Crowns and Bridges	--	--	Indian Edition by Varghese Company
21.	Bengt 'O' wall Arud F. Kayser	Prosthodontics	--	--	Mosby - Wolfe
22.	Gunnar E. Carlsson	Principles and Management Strategies	--	--	Mosby - Wolfe

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IV BDS PROSTHODONTICS, CROWN AND BRIDGE INCLUDING IMPLANTOLOGY

Teaching Hours:

Clinical:

III year :70 hours

IV year 300 hours

Theory:

III year :30 hours

IV year :80 hours

IV PROSTHODONTICS THEORY: 30 HOURS

Sl. No.	Subjects	Hours
1.	Relating the patient to the articulator Articulators - articulators based on theories of occlusion - articulators based on the type of record used for their adjustment Selection of Articulator for complete dentures - Hanau articulator - Whip mix articulator - Dentatus articulator	1 hour
2.	Selecting artificial teeth for edentulous patient Anterior tooth selection Pre extraction guides size of the anterior teeth form of the anterior teeth The dentogenic concept in selecting artificial teeth Posterior tooth selection Bucco lingual width of posterior teeth mesiodistal length of posterior teeth cervico Occlusal Length of Posterior Teeth types of posterior teeth according to materials types of posterior teeth according to cusp inclines	1 hour
3.	Preliminary Arrangement Of Artificial Teeth Guides for preliminarily arranging anterior teeth Relationship to incisive papilla factors governing the anteroposterior position of the dental arch	1 hour

<p>Setting Maxillary anterior teeth in wax for try in Importance of proper Anteroposterior positioning of the anterior teeth Setting mandibular anterior teeth in the wax for try in Horizontal overlap Preliminary arrangement of Posterior teeth Orientation of occlusal plane tentative buccolingual position of the posterior teeth tentative arch form of the posterior teeth Setting posterior teeth for try in guidelines for centric occlusion esthetics and leverage</p>	
<p>4. Perfection and verification of jaw relation records Verifying Vertical Dimension Verifying the centric relation Intraoral observation of intercuspation . Intraoral interocclusal records Extra oral articulator method Creating Facial And Functional Harmony With Anterior Teeth Anatomy of natural appearance and facial expression normal facial landmarks maintaining facial support and neuromuscular balance Basic guides to developing facial and functional harmony preliminary selection of the artificial teeth horizontal orientation of the anterior teeth vertical orientation of the anterior teeth phonetics in the orientation of the anterior teeth inclination of the anterior teeth harmony in the general composition of anterior teeth refinement of individual tooth positions concept of harmony with sex personality and age of the patient correlating esthetics and incisal guidance Patient acceptance of arrangement of anterior teeth</p>	1 hour
<p>5. Completion of the try in : Eccentric Jaw relation adjustment, establishing the posterior palatal seal Protrusive and lateral relations Controlling factors of movement Eccentric relation records Establishing the posterior palatal seal Arranging posterior teeth for functional harmony Importance of occlusion Maintenance of the arches Maintenance of occlusal harmony differences in artificial occlusion and natural occlusion rational for arranging posterior teeth in Temporomandibular joint disturbances Factors of Centric occlusion Critical components in arranging posterior teeth Laws protrusive occlusion</p>	2 hours

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<p>Laws of lateral occlusion Occlusal schemes used in complete dentures for the edentulous patients - Anatomic teeth - Non anatomic teeth - Other tooth forms Techniques for arranging cusped teeth in Balanced occlusion techniques for arranging cusplless teeth in occlusion. Appearance and Functional Harmony of Denture Bases materials used for denture bases - Acrylic Resin - Metal formation and preparation of the mold packing the mold preserving the orientation relations construction of remounting casts completing the rehabilitation of the patient dentists evaluations patients evaluations friends evaluations elimination of basal surface errors errors in occlusion interocclusal records for remounting dentures interocclusal record of centric relation remounting the mandibular denture verifying centric relation Phonetics - Production of voice and Articulation of sounds Position of teeth and phonetics Neutral, Zone, Relief Processing errors - Reasons and care Selective grinding Remount and correction of occlusal discrepancies Prosthesis - Insertion</p>	
<p>6. Patient instructions , after care and recall and management of patient complaints protrusive inter occlusal record alternative use of plaster inter occlusal records advantages of balanced occlusion in complete dentures special instructions to the patient - individuality of patients - appearance with new dentures - mastication with new dentures - speaking with new dentures - oral hygiene with dentures Maintaining the comfort and health of the oral cavity in a rehabilitated edentulous patient Post Insertion Adjustments - adjustments relaxed to the occlusion - adjustments relaxed to the Denture bases - subsequent oral examinations and treatments</p>	<p>1 hour</p>

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<p>7. Rehabilitation of the partially edentulous patients (overdentures) tooth-supported complete dentures - indications and contraindications for over dentures - selection of abutment teeth - clinical procedures</p>	<p>1 hour</p>
<p>8. Immediate Denture Treatment - indication for immediate dentures - contraindications to immediate denture service - delayed and transitional dentures - treatment planning - clinical procedures - waxing and flasking - preparation of the surgical template - processing occlusal correcting, and final preparation of the immediate dentures - surgery and the insertion of the dentures - postoperative patient instructions - perfecting the occlusion - subsequent service for immediate dentures Single complete dentures opposing natural teeth - maxillary single dentures - clinical and laboratory procedures - subsequent problems with single dentures against natural teeth - mandibular single dentures - supplemental prosthodontic procedures for the edentulous patient</p>	<p>2 hours</p>
<p>9. Relining or Rebasing of Complete Dentures - treatment rationale - diagnosis - clinical procedures Static impression technique closed and open mouth relines/rebases - functional impression technique - chair side technique Repair of Complete Dentures And Duplication Of Casts - Maxillary and mandibular fracture repair - repairs using cold-curing resin - duplication of casts - reversible hydrocolloid technique - irreversible hydrocolloid technique</p>	<p>2 hours</p>
<p>10. Osteo Integrated Supported Prosthesis (Dental Implants) For The Edentulous Patient - maladaptive denture behavior - use of dental implants - patient considerations - tissue integration in the edentulous patient Management of japer-plastic ridges - Atrophied flat mandibular ridges in complete denture prosthesis therapy</p>	<p>1 hour</p>

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Geriatric Dentistry: Management of aged, senior citizens, physically, mentally handicapped patients	
REMOVABLE PARTIAL DENTURE PROSTHESIS	
11. 1. Introduction and scope 2. Terminology 3. Classifications 4. Examination, diagnosis and treatment planning 5. Components of removable partial dentures and their functions	3 hours
12. Major connectors Mandibular Major connectors Maxillary Major connectors	2 hours
13. Minor connectors Functions Form and location Tissue stops Finishing lines. reaction of tissues to metallic coverage form of occlusal rests and rest seats	1 hour
14. Rests and rest seats Interproximal occlusal rest seats Internal occlusal rests Incisal rests and rest seats Lingual rests on canines and incisor teeth Possible movements of partial denture Support for rests	1 hour
15. Direct retainers Internal attachments Extra coronal direct retainers Relative uniformity of retention Criteria for selecting a given clasp design Basic principles of clasp design Designs of clasps	3 hours
16. Indirect retainers Denture rotation about an axis Factors influencing effectiveness of indirect retainers Auxiliary functions of indirect retainers Forms of indirect retainers Auxiliary occlusal rests Canine extensions from occlusal rests Canine rests Continuous bar retainers and lingual plates	2 hours

Amalalal

<p>Modification areas Rugae support Direct indirect retention Denture base considerations Tooth supported partial denture base</p>	
<p>17. Distal extension partial denture base: Functions of denture bases Methods of attaching denture bases Ideal denture base material Advantages of metal bases Methods of attaching artificial teeth Need for relining</p>	1 hour
<p>18. Impression materials and procedures for removable partial dentures Rigid materials thermoplastic materials elastic materials impressions of the partially edentulous arch individual impression trays support for distal extension removable partial dentures - factors influencing the support of distal extension bases method for obtaining functional support for distal extension base</p>	3 hours
<p>19. Surveying Description of a dental surveyor Purposes of a surveyor Factors that determine path of placement and removal Step by step procedures in surveying a diagnostic cast Final path of placement Recording relation of cast to surveyor Surveying the master cast Measuring retention and balancing of retention Influence of survey line in designing of clasps Blocking out the master cast Relieving the master cast Paralleled block out, shaped block out, arbitrary block out and relief Preparation of the mouth for removable partial denture Oral surgical preparation Conditioning of abused and irritated tissues Periodontal preparation Periodontal diagnosis and treatment planning Initial disease control therapy Definitive periodontal therapy</p>	3 hours

Shreshtha

<p>Recall and maintenance Advantages of periodontal therapy Preparation of abutment teeth Classification of abutment teeth Sequence of abutment preparation on sound enamel Abutment preparation using conservative restorations Abutment preparation using crowns Splinting of abutment teeth Use of isolated teeth as abutment Missing anterior teeth Temporary crowns when a partial denture is being worn Fabricating restorations to fit existing denture retainers</p>	
<p>20 Occlusal relationship for removable partial denture difference in natural and artificial occlusion desirable occlusal contact relationship for removable partial denture method for establishing occlusal relationship materials for artificial posterior teeth establishing jaw relation for mandibular removable partial denture opposing a maxillary complete denture laboratory procedures duplicating a stone cast waxing the partial denture framework anatomic replica pattern spruing, investing, burnout, casting and finishing of the partial denture framework making record base occlusal rims making a stone occlusal template from a functional occlusal record arranging posterior teeth to an opposing cast types of anterior teeth waxing & investing the partial denture before processing the acrylic resin base processing the denture remounting and occlusal corrections to an occlusal template polishing the denture work authorization for removable partial denture work authorization definitive instructions by work authorization Legal aspects of work authorization Relining and rebasing the removable partial denture Relining tooth support - supported denture base Relining distal extension denture base Method of reestablishing occlusion of a relined partial denture</p>	<p>3 hours</p>
<p>21. Stress breakers Types of stress breakers Advantages of stress breakers Disadvantages of stress breakers Advantages of a rigid design Disadvantages of a rigid design Stress breaking principles Principles of removable partial denture design Biomechanical considerations Other factors influencing Differentiation between two main types of removable partial dentures Essentials of partial denture design Components of partial denture design Additional considerations influencing design</p>	<p>1 hour</p>

<p>Modification areas Rugae support Direct indirect retention Denture base considerations Tooth supported partial denture base</p>	
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<p>Recall and maintenance Advantages of periodontal therapy Preparation of abutment teeth Classification of abutment teeth Sequence of abutment preparation on sound enamel Abutment preparation using conservative restorations Abutment preparation using crowns Splinting of abutment teeth Use of isolated teeth as abutment Missing anterior teeth Temporary crowns when a partial denture is being worn Fabricating restorations to fit existing denture retainers</p>	
<p>20 Occlusal relationship for removable partial denture difference in natural and artificial occlusion desirable occlusal contact relationship for removable partial denture method for establishing occlusal relationship materials for artificial posterior teeth establishing jaw relation for mandibular removable partial denture opposing a maxillary complete denture laboratory procedures duplicating a stone cast waxing the partial denture framework anatomic replica pattern spruing, investing, burnout, casting and finishing of the partial denture framework making record base occlusal rims making a stone occlusal template from a functional occlusal record arranging posterior teeth to an opposing cast types of anterior teeth waxing & investing the partial denture before processing the acrylic resin base processing the denture remounting and occlusal corrections to an occlusal template polishing the denture work authorization for removable partial denture work authorization definitive instructions by work authorization Legal aspects of work authorization Relining and rebasing the removable partial denture Relining tooth support - supported denture base Relining distal extension denture base Method of reestablishing occlusion of a relined partial denture</p>	<p>3 hours</p>
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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.	Child Psychology Definition Importance of understanding child psychology in pedodontics Theories Psychological development from birth through adolescence Dental fear, anxiety and their management, types of cry Application of psychology principles in dental management Psychological disorders including anorexia, bulimia Child Abuse and Neglect	4 hours
2.	Behaviour Management Definition Classification and types of behaviour Factors influencing child behaviour Non-pharmacological management of behaviour Pharmacological management of behaviour: Pharmacological principles in pediatric dentistry-drug dosage formulae Analgesics, anti inflammatory and antibiotics commonly prescribed for children Conscious sedation including nitrous oxide-oxygen inhalation anaesthesia	5 hours
3.	Fluorides Historical background Systemic fluorides-availability, agents, concentrations, advantages and disadvantages Topical fluorides-agents, composition, methods of application both for professional and home use, advantages and disadvantages Mechanism of action and its anti cariogenic effect Fluoride toxicity and its management De fluoridation techniques	4 hours

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<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

Amal Kumar

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 typodont 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

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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
- Oral prophylaxis and topical fluoride application
 - Restoration of decayed tooth
 - 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 RECOMMENDED

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

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- d. Upper Hawley's with Posterior bite plane with 'Z' spring
- e. Lower inclined plane / Catalan's Appliance
- f. Upper Expansion plate with Expansion Screw
- g. Construction of Activator

RECOMMENDED AND REFERENCE BOOKS

1. Contemporary Orthodontics - William R Proffit
2. Orthodontics for Dental Students - White and Gradiner
3. Handbook for Dental Students - Movers
4. Orthodontics - Principles and Practice - Graber
5. Design, Construction and Use of Removable Orthodontic Appliances - C. Philip
6. Adams
7. Clinical Orthodontics: Vol 1 & 2 - Salzmann
Orthodontics - Graber and Swine
8. Textbook of Orthodontics-III Edition, M S Rani, All India
Publishers & Distributors, New Delhi
Dr G V N

SCHEME OF EXAMINATION OF B.D.S (ORTHODONTICS)
Total Theory Marks - 100 Marks

Theory Written Examination -	70 Marks
Vivavoce -	20 Marks
Internal Assessment -	<u>10 Marks</u>
Total	<u>100 Marks</u>

Theory Written Examination- 70 Marks

Type of Questions	Marks	Total
Long Essays - 2	2 x 10	20
Short Essays - 8	8x5	40
Short Answers - 5	5x2	10
Total		70

Clinical Examination - 100 Marks

University Clinical Examination	90 Marks
Internal Assessment -	10 Marks
Total	<u>100 Marks</u>

University Clinical Examination - 90 Marks

Clinical Work	Marks	Total
Spotters - 10 Nos	10 x 3	30
Wire Bending - 3 Exercises	15 Marks	40
a. Labial Bow -	15 Marks	
b. Adams Clasp	10 Marks	
c. Fingers Spring / Z Spring		
Clinical Case Discussion		20
Total		90

<p>Laws of lateral occlusion Occlusal schemes used in complete dentures for the edentulous patients</p> <ul style="list-style-type: none"> - Anatomic teeth - Non anatomic teeth - Other tooth forms <p>Techniques for arranging cusped teeth in Balanced occlusion techniques for arranging cusplless teeth in occlusion.</p> <p>Appearance and Functional Harmony of Denture Bases materials used for denture bases</p> <ul style="list-style-type: none"> - Acrylic Resin - Metal <p>formation and preparation of the mold packing the mold preserving the orientation relations construction of remounting casts completing the rehabilitation of the patient dentists evaluations patients evaluations friends evaluations elimination of basal surface errors errors in occlusion interocclusal records for remounting dentures interocclusal record of centric relation remounting the mandibular denture verifying centric relation Phonetics - Production of voice and Articulation of sounds Position of teeth and phonetics Neutral, Zone, Relief Processing errors - Reasons and care Selective grinding Remount and correction of occlusal discrepancies Prosthesis - Insertion</p>	
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