UNIVERSITY OF JAMMU
SYLLABUS FOR FINAL PROF. B.D.S

CONSERVATIVE DENTISTRY AND ENDODONTICS

Scheme of Examination is as under:-

Theory paper consisting of two parts:-	Part A	35 Marks (for Internal Examiner)
	Part B	35 Marks (for External Examiner)
Duration of Examination 03 Hours	Part A	1 ½ Hours
	Part B	1 ½ Hours

OBJECTIVES:

A. Knowledge
B. Skills and
C. Attitudes

A. Knowledge and understanding

The graduate should acquire the following knowledge during the period of training;

a) Diagnose and treat simple restorative work for teeth.
b) Gain Knowledge about aesthetic restorative material and to translate the same to patients needs.
c) Gain the knowledge about endodontics treatment on the basis of scientific foundation.
d) Carry out simple endodontics treatment.
e) Carry out simple luexation of tooth and its treatment and to provide emergency endodontics treatment.

B. Skills

He/she should attain the following skills necessary for practice of dentistry

a) Use medium and high speed hand-pieces to carry out restorative work.
b) Use and be familiar with endodontic instruments and materials needed for carrying out simple endodontic treatment.
c) Translate patients aesthetic needs along with function.

C. Attitudes

i) Maintain a high standard of professional ethics and conduct and apply these in all aspects of professional life.
ii) Willingness to participate in CDE programme to update the knowledge and professional skill from time to time.
iii) To help and participate in the implementation of the national oral health policy
iv) He should be able to motivate the patient for proper dental treatment at the same time proper maintenance of oral hygiene should be emphasise which will help to maintain the restorative work and prevent future damage.

PART A

INTRODUCTION :

Definition aims objective of Conservative Dentistry scope and future of Conservative Dentistry.

1. Nomenclature of Dentition.
Tooth numbering systems A.D.A Zsigmondy Palmer and F.D.I systems.

2. Principles of Cavity Preparation:

Steps and nomenclature of cavity preparation classification of cavities , nomenclature of floors angles of cavities.

3. Dental Caries :

Aetiology, classification clinical features, morphological features, microscopic features, clinical diagnosis and sequel of dental caries.

4. Treatment Planning For Operative Dentistry:

Detailed clinical examination, radiographic examination, tooth vitality tests, diagnosis and treatment planning , preparation of the case sheet.

5. Gnatholoical Concepts of Restoration :

Physiology of occlusion , normal occlusion, Ideal occlusion, mandibular movements and occlusal analysis. Occlusal rehabilitation and restoration.

6. Armamentarium For Cavity Preparation.

General classification of operative instruments , Hand cutting instruments, design formula and sharpening of instruments. Rotary cutting instruments dental bur, mechanism of cutting, evaluation of hand piece and speed current concepts of rotary cutting procedures. Sterilization and maintenance of instruments. Basic instruments tray set up.

7. Control of Operating field :

Light source sterilization field of operation of moisture , rubber dam in detail, cotton rolls and anti sialogagues.

8. Amalgam restoration :

Indication contraindication, physical and mechanical properties, clinical behavior and restoration. Failure of amalgam restoration.

9. Pulp Protection :

Liners, varnishes and bases, Zinc phosphate, zinc polycarboxylate, zinc oxide eugenol and glass inomer cements.

10. Anterior Restorations:

Selection of causes, selection of material , step wise procedures for using restoration, silicate (theory only) glass ionomers, composites, including sand witch restoration and bevels of the same with a note on status of dentine bonding agents.

11. Direct filing Gold Restorations.

Types of direct filling gold indications and limitation of cohesive gold. Annealing of gold foil cavity preparation and condensation of gold foils.

12. Preventive Measures in Restorative Practice.

Plaque control, pit and fissure sealants dietary measures restorative procedure and periodontal health. contact and contour of teeth restoration matrices tooth separation and wedges.

13. Temporization or Interim Restoration.

14. Pin amalgam Restoration Indication Contra Indication
    Advantages disadvantages of each types of pin methods of placement use of auto matrix failure of pin amalgam restoration.

15. Management of Deep Carious Lesions Indirect and Direct Pulp capping

16. Non carious Destruction's Tooth Structures Diagnosis and Clinical Management.

17. Hyper Sensitive Dentine And its management.

18. Cast Restorations.
    Indications, contra indications advantages and disadvantages and materials used or same class II and class I cavity preparation for inlays fabrication of wax pattern sprue investment and procedures & casting defects.

19. Die Material and Preparation of Dies.

20. Gingival Tissue Management for Cast Restoration and Impression Procedures.

21. Recent cavity Modification Amalgam Restoration.
22. Differences between Amalgam and inlay Cavity preparation with note on all the types of Bewels used for cast Restoration.
23. Control of pain During Operative Procedures.
24. Treatment Planning For Operative Dentistry Detailed Clinical examination Radiographic Examination.
25. Vitality Tests, diagnosis and Treatment Planning and Preparation of Case Sheet.
26. Applied Dental Materials.
    1. Biological Considerations.
       Evaluation, clinical application and adverse effects of the following materials, Dental cements, Zinc oxide eugnol cements ,zinc ,phosphate cements polycarboxylates glass incomer cements , silicate cement, calcium, hydroxides varnishes.
    2. Dental amalgam , technical considerations mercury toxicity mercury hygiene.
    3. Composite , Dentine bonding agents , chemical and light curing composites.
    4. Rubber base Imp. Materials
    5. Nobel metal alloys &non noble metal alloys.
    6. Investment and die materials.
    7. Inlay casting waxes
    8. Dental porcelain
    9. Aesthetic Dentistry

PART B

1. Endodontics: introduction definition scope and future of endodontics.
2. Clinical diagnostic methods.
3. Emergency endodontics procedures.
4. Pulpal diseases; types and treatment.
5. Periapical diseases : acute periapical abscess, acute periodontal abscess phoneix abscess, chronic alveolar abscess granuloma, cysts ,condensing osteites, external resorption.
6. Vital pulp therapy: indirect and direct pulp capping ,pulpotomy ,different types and medicaments used.
7. Apexogenesis and apexification or problem of open apex.
8. Rationale of endodontic treatment ,case selection, indication and contraindications for root canal treatments.
9. Principles of root canal treatment mouth preparation root canal instruments , hand instruments, power driven instruments, standardization color coding principle of using endodontics instruments. Sterilisation of root cnal instruments and materials rubber dam application.
10. Anatomy of the pulp cavity : root canals, apical foramen., Anomalies of pulp cavities access cavity preparation of anterior and premolar teeth.
11. Preparation of root canals, irrigating solution chemical aids to instrumentation.
12. Disinfection of root canal space, intracanal medicaments, poly antibiotic paste roth mans paste mummifying agents. Out line of root canal treatment , bacteriological examinations, culture methods.
13. Problems during cleaning and shaping of root canal spaces. Perforation and its management. Broken instruments and its management, management of single and double curved root canals.
14. Methods of cleaning and shaping like step back down and conventional methods.
15. Obturation of the root canal system. Requirements of an ideal root canal filling material obturation methods using gutta percha healing after endodontic treatment. Failures in endodontic.
16. Root canal sealers. Ideal properties classification. Manipulation of root canal sealers.

17. Post endodontic restoration fabrication and components of post core preparation.
18. Smear layer and its importance in endodontic and conservative treatment.
19. Disordered teeth and its management . bleaching agents, vital and non vital bleaching methods.
20. Traumatized teeth classification of fractured teeth. Management of fractured tooth and root. Luxated teeth and its management.
21. Endodontic surgeries indication contraindications, pre operative preparation. Pre medication surgeries instruments and techniques apicectomy, retrograde filling, post operative sequale trephination hemisection, radiscetomy techniques of tooth reimplantation (both intentional and accidental) endodontic implants.
22. Root resorption.
23. Emergency endodontic procedures.
24. Lasers in conservative endodontics (introduction only) practice management.
25. Professional association dentist act 1948 and its amendment 1993
26. Duties towards the govt. like payments of professional tax, income tax
27. Financial management of practice.
28. Dental material and basic equipment amanagement.
29. Ethics

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UNIVERSITY OF JAMMU
SYLLABUS FOR FINAL PROF. B.D.S

ORAL & MAXILLOFACIAL SURGERY

Scheme of Examination is as under:-

Theory paper consisting of two parts:-	Part A 35 Marks (for Internal Examiner)
	Part B 35 Marks (for External Examiner)
Duration of Examination 03 Hours	Part A 1 ½ Hours
	Part B 1 ½ Hours

AIMS

To produce a graduate who is competent in performing extraction of teeth under both local and general anesthesia, prevent and manage related complications, acquire a reasonable knowledge and understanding of the various diseases injuries, infection occurring in the Oral & Maxillofacial region and other solutions to such of those common conditions and has an exposure in to the in-patient management of maxillofacial problems.

OBJECTIVE:

1. Knowledge & Understanding:

At the end of the course and the clinical training the graduate is expected to:-

1. Able to apply the knowledge gained in the related medical subjects like pathology, microbiology, General Surgery and general medicine in the management of patients with oral surgical problem.
2. Able diagnose manage and treat (understand the principles treatment of) patients with oral surgical problems.
3. Knowledge of range of surgical treatments.
4. Ability to decide the requirement of a patient to have oral surgical specialist opinion or treatment.
5. Understand the principles of in-patient management.
6. Understanding of the management of major oral surgical procedures and principles involved in patient management.
7. Should know ethical issues and communication ability.

2. Skills:

1. A graduate should have acquired the skill to examine any patient with an oral surgical problem in an orderly manner. Be able to understand requisition of various clinical and laboratory investigations and is capable of formulating differential diagnosis.
2. Should be competent in the extraction of teeth under both local and general anesthesia.
3. Should be able to carry out certain minor oral surgical procedures under local Anesthesia like frenectomy , alveolar procedures & biopsy etc.
4. Ability to assess, prevent and manage various complications during and after surgery.
5. Able to provide primary care and manage medical emergencies in the dental office.
6. Understanding of the management of major oral surgical problems and principles involved inpatient management.

PART A
DETAILED SYLLABUS

1. Introduction, definition, scope, aims and objectives.
2. Diagnosis in oral surgery:
   a. History taking
   b. Clinical examination
   c. Investigations.
3. Principles of infection control and cross- infection control with particular reference to HIV/AIDS and Hepatitis.
4. Principles of Oral surgery-

a) Asepsis: Definition , measures to prevent introduction of infection during surgery.
   1. Preparation of the patient.
   2. Measures to be taken by operator
   3. Sterilization of instruments –various methods of sterilization etc.
   4. Surgery set up.

b) Painless surgery:
   1. Pre-anaesthetic considerations. Pre-medication: purpose, drugs used
   2. Anaesthetic considerations-
      a) Local b) Local with IV sedations
   3. Use of general anesthetic.

c) Access :
   Intra –oral : Mucoperiosteal flaps, principles, commonly used intra oral incisions.
   Bone Removal : Methods of bone removal.
   Use of Burs : Advantages & precautions disadvantages
   Bone cutting instruments : Principles of using chisel & osteotome.
   Extra – oral : skin incisions – principles various extra –oral incision to expose facial skeleton.
   a) Submandibular
   b) Pre auricular
   c) Incision to expose maxilla & orbit.
   d) Bicoronal incision

d) Control of haemorrhage during surgery
   Normal Heamostasis
   Local measures available to control bleeding
   Hypotensive anaesthesia etc.

e) Drainage & Debridement
   Purpose of drainage in surgical wounds
   Types of drains used
   Debridement : purpose, soft tissue & bone debridement.

f) Closure of wounds
   Suturing :Principles , suture material , classification, body response to various materials etc.

g) Post operative care
   Post operative instructions
   Physiology of cold and heat
   Control of pain –analgesics
   Control of infection –antibiotics

Control of swelling –anti –inflammatory drugs.
Long term post operative follow up –significance.

7. Cleft Lip and Palate-
   Aetiology of the clefts, incidence, classification, role of dental surgeon in the management of cleft patients. Outline of the closure procedures.
8. Medical emergencies in dental practice-
   Primary care of medical emergencies in dental practice particularly-
   (a) Cardio vascular (b) Respiratory (c) Endocrine
   (d) Anaphylactic reaction (e) Epilepsy
9. Ethics

LOCAL ANESTHESIA:

Introduction , concept of L.A., classification of local anaesthetic agents, ideal requirements, mode of action , types of local anaesthesia complications.

Use of Vaso constrictors in local anaesthetic solution.
Advantages, contra- indications, various vaso constrictors used.
Anaesthesia of the mandible.
Pterygomandibular space- boundaries, contents etc.
Interior Dental Neve Block- various techniques
Complications
Mental foramen nerve block
Posterior superior alveolar neve block
Maxillary nerve block- techniques.

GENERAL ANAESTHESIA-

Concept of general anaesthesia.
Indications of general anaesthesia in dentistry.
Pre-anaesthetic evaluation of the patient.
Pre-anaesthetic medication-advantages, drugs used.
Commonly used anaesthetic agents.
Complication during and after G.A.
I.V. sedation with Diazepam and Medozolam.
Indications , mode of action, technique etc.
Cardiopulmonary and emergency drugs.
Use of oxygen and emergency drugs.
Tracheostomy.

PART B

1. Exodontias: General considerations
   Ideal Extraction.
   Indications for extraction of teeth
   Extractions in medically compromised patients.
   Methods of extraction-
(a) Forceps or intra –alveolar or closed method
   Principles, types of movement , force etc.
(b) Trans –alveolar, surgical or open method, Indications, surgical procedure.
   Dental elevations ;uses, classification, principles in the use of elevators,commonly Used elevators.
   Complications of Exodontias
   Complications during exodontias
   Common to both maxilla and mandible
   Post –operative complications
   Prevention and management of complications

2. Impacted teeth:
   Incidence, definition , aetiology.
(a) Impacted mandibular third molar.
   Classification, reasons for removal
   Assessment –both clinical & radiological
   Surgical procedures for removal.
   Complications during and after removal
   Prevention and management.
(b) Maxillary third molar,
   Indications for removal , classification,
   Surgical procedure for removal
(c) Impacted maxillary canine
   Reason for canine impaction,
   Localization , indications for removal ,
   Methods of management ; labial and palatal approach
   Surgical exposure , transplantation , removal etc.
3. Pre –prosthetic Surgery:
   Definition , classification of procedures
      (a) Corrective procedures : Alveoloplasty,
         Reduction and removal of tori.
      (b) Ridge extension or Sulcus extension procedures
         Indications and various surgical procedures
      (c) Ridge augmentation and reconstruction
         Indications , use of bone grafts, Hydroxyapatite
         Implants – concept of osseo integration
         Knowledge of various types of implants and surgical procedure to place implants.
4. Diseases of the maxillary sinus
   Surgical anatomy of the sinus.
   Surgical both acute and chronic
   Removal of root from the sinus.
   Oro- -antral fistula- aetiology, clinical features and various surgical procedure
5. Disorders of T.M. Joint
   Applied surgical anatomy of the joint
   Dislocation- Types, aetiology, clinical features and management
   Ankylosis – Definition, aetiology, clinical features and management.
   Myo-facial pain dysfunction syndrome, aetiology , clinical features, management- Internal derangement of the joint.
   Arthritis of T.M. Joint.
6. Infections of the Oral cavity
   Introduction ,factors responsible for infection, course of odontogenic.
   Infections, spread of odontogenic infections through various facial spaces.
   Dento- alveolar abscess- aetiology, clinical features and management.
   Osteomyelities of the jaws – definition , aetiology, pre-disposing factors,
   Classification, clinical features and management
   Ludwigs angina- definition , aetiology, clinical features, management and complications.

7. Benign cystic lesions of the jaws
   Definition, classification, pathogenesis
   Diagnosis- Clinical features, radiological, aspiration biopsy, use of contrast
   Media and histopathology.

Management – Types of surgical procedures, Rationale of the techniques, Indications, procedures, complications etc.

8. Tumours of the Oral cavity
   General considerations
   Non odontogenetic benign tumours occurring in oral cavity- fibroma, papilloma, lipoma, ossifying fibroma, maynoma etc.
   Ameloblastoma – Clinical features, radiological appearance and methods of management.
   Carcinoma of the oral cavity
   Biopsy –types
   TNM classification.
   Outline of management of squamous
   Cell carcinoma : surgery radiation and chemotherapy
   Role of dental surgeons in the prevention and early detection of oral cancer.
9. Fractures of the jaws-
   General considerations, types of fractures, aetiology, clinical features and general Principles of management.
   Mandibular fractures- Applied anatomy , classification.
   Diagnosis – Clinical and radiological
   Management – Reduction closed and open
   Fixation and immobilization methods
   Outline of rigid and semi- rigid internal fixation
   Fractures of the condyle- aetiology classification, clinical features, principles of management.
   Fractures of the middle third of the face.
   Definition of the mid face, applied surgical anatomy , classification, clinical features and outline of management.
   Alveolar fractures- methods of management.
   Fractures of the Zygomatic complex
   Classification, clinical features, indications for treatment , various methods of reduction and fixation.
   Complications of fractures- delayed union, non-union and malunion
10. Salivary gland diseases-
   Diagnosis of salivary gland diseases'
   Sialography , contrast media, procedure.
   Infections of the salivary glands.
   Sialoithiasis – Sub mandibular duct and gland and parotid duct.
   Clinical features, management..
   Salivary fistulae
   Common tumours of salivary glands like Pleomorphic adnoma including minor salivary glands.
11. Jaw deformities-
   Basic forms – Prognathism , Retrognathism and open bite.
   Reasons for correction.
   Outline of surgical methods carried out on mandible and maxilla.
12. Neurological disorders-
   Trigeminal neuralgia – definition , aetiology, clinical features and methods of management including surgical.
   Facial paralysis – Aetiology, clinical features.
   Nerve injuries- classification, neurorhaphy etc.
13. Oral Implantology

RECOMMENDED BOOKS:

1. Impacted teeth; Alling John F& etal.
2. Principles of oral and maxillofacial surgery; Vol1,2 &3 Peterson LJ & etal.
3. Text book of oral and maxillofacial surgery; Srinivasan B.
4. Handbook of medical emergencies in the dental office, Malamed SF.
5. Killeys Fractures of the mandible; Banks P.
6. Killeys Fractures of the middle 3rd of the facial skeleton; Banks P.
7. The maxillary sinus and its dental implications; McGovanda
8. Killey and Kays outline of oral surgery – Part-1 ; Seward GR & etal
9. Essentials of safe dentistry for the medically compromised patients; Mc Carthy FM
10. Oral & maxillofacial surgery, Vol2 ; Laskin DM
11. Extraction of teeth ; Howe, GL
12. Minor Oral Surgery; Howe, GL
13. Contemporary oral and maxillofacial surgery; Peterson LJ & EA
14. Oral and maxillofacial infections; Topazian RG& Goldberg MH.

UNIVERSITY OF JAMMU
SYLLABUS FOR FINAL PROF. B.D.S

ORAL MEDICINE & RADIOLOGY

Scheme of Examination is as under:-

Theory paper consisting of two parts:-	Part A	35 Marks (for Internal Examiner)
	Part B	35 Marks (for External Examiner)
Duration of Examination 03 Hours	Part A	1 ½ Hours
	Part B	1 ½ Hours

AIMS

1. To train the students to diagnose the common disorders of Orofacial region by clinical examination and with the help of such investigations as may be required and medical management of oro-facial disorders with drugs and physical agents.
2. To train the students about the importance , role , use and techniques of radiographs/digital radiograph and other imaging methods in diagnosis.
3. The principles of the clinical and radiographic aspects of Forensic Odontology.

The syllabus in ORAL MEDICINE & RADIOLOGY is divided into two parts:

(IX) Diagnosis, Diagnostic methods and Oral Medicine

(X) Oral radiology.

Again the part ONE is subdivided into three sections

(A) Diagnostic methods

(B) Diagnosis and differential diagnosis

(C) Oral Medicine & therapeutics

COURSE CONTENT

(1) Emphasis should be laid on oral manifestations of systemic diseases and ill-effects of oral sepsis on general health.

(2) To avoid confusion regarding which lesion and to what extend the student should learn and know, this elaborate syllabus is prepared. Ascertain lesions come under more than one group, there is repetition.

PART A

PART-I ORAL MEDICINE AND DIAGNOSTIC AIDS

SECTION (A) – DIAGNOSTIC METHODS

(1) Definition and importance of Diagnosis and various types of diagnosis.

(2) Methods of clinical examinations.

(a) General physical examination by inspections.

(b) Oro-Facial region by inspection, palpation and other means.

(c) To train the students about the importance , role, use of saliva and technique of diagnosis of saliva as part of oral disease.

(d) Examination of lesions like swellings, ulcers, erosions, sinus, fistula, growths, pigmented lesions, white and red patches.

(e) Examination of lymph nodes.

(f) Forensic examination – procedures for post mortem dental examination; maintaining dental records and their use in dental practice and post-mortem identification;

jurisprudence and ethics

(3) Investigations
(a) Biopsy and exfoliative cytology
(b) Haemotological , Microbiological and other tests and investigations necessary for diagnosis and prognosis.

SECTION (B) – DIAGNOSIS, DIFFERENTIAL DIAGNOSIS

While learning the following chapters, emphasis shall be given only on diagnostic aspects including differential diagnosis

(1) Teeth: Developmental abnormalities, causes of destruction of teeth and their sequel and discolouration of teeth.
(2) Diseases of bone and Osteodystrophies: development disorders: Anomalies, Exostosis and tori, infantile cortical hyperostosis, osteogenisis imperfectia, Marfans syndrome, osteopetrosis, Inflammation – Injury, infection and spread of infection, fascial space infections, osteoradionecrosis.
Mtabolic disorders – Histiocytosis
Endocrine – Acro-megaly and hyperparathyroidism
Miscellaneous – Paget's diseases, Mono and polyostoic Fibrous dysplasia, Cherubism.
(3) Temparomandibular joint: Development abnormalities of the condyle, rheumatoid arthritis, Osteoarthritis, Sub Luxation and luxation.
(4) Common cysts and tumours:
Cysts of soft tissues: Mucocele and Ranula
Cysts of bone : odontogenic and nonodontogenic.

TUMOURS:
Soft Tissues:
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 Tumour, Adenoid cystic carcinoma.
Hard Tissue:
Non Odontogenic: Osteoma, Osteosarcoma, Osteoclastoma, Chondroma, Chondrosarcoma, Central Giant Cell tumour and central haemangioma
Odontogenic: Enameloma, Ameloblastoms, Calcifing Epithelial Odontogenic tumor, Adenomatoid Odontogenic tumour, Periapical cemental dysphasia and odontomas.

(5) Periodontal diseases: Gingival hyperplasia gingivitis, periodontitis, pyogenic granuloma.
(6) Granulomatous disease: Tuberculosis , Sarcoidosis, Midline lethal granuloma, Crohn's Disease and Histiocytosis X
(7) Miscellaneous Disorders: Burkitt lymphoma, Sturge – Weber syndrome, CREST syndrome, rendu – osler – weber disease.

SECTION (C): ORAL MEDICINE AND THERAPEUTICS
The following chapters shall be studies in detail including the aetiology, pathogenesis, clinical features, investigations, differential diagnosis, management and prevention.

1) Infections of oral and paraoral structures:
Bacterial: Streptococcal, tuberculosis, syphilis, vincents, leprosy, antinomycosis, diphtheria and tetanus.

Fungal: Candida albicans
Virus: Herpes simplex, Herpes zoster, Ramsay hunt syndrome, measles, herpangina, mumps, infectious mononucleosis, AIDS and hepatitis – B.

2) Important common mucosal lesions:
White lesions: Chemical burns, leukodema, leukoplakia, Fordyce spots, stomatitis nicotins palatinus, white sponge nevus, candidiasis, lichenplanus, discoid lupus erythematosis.
Vesiculo-bullous lesions: Herpes simplex , herpes zoster, herpangina, bullous lichen planus, pemphigus, cicatricial pemphigoid erythema multiforme.
Ulcers: Acute and chronic ulcers.
Pigmented lesions: Exogenous and endogenous.
Red Lesions: Erythroplakia, stomatitis venenata and medicamentosa, erosive lesion and denture sore mouth.

3) Cervico – facial lymphadenopathy.

4) Facial pain:
(i) Organic pain: Pain arising from the diseases of orofacial tissue like teeth, pulp, gingival and periodontal tissue, mucosa, tongue, muscles, blood vessels, lymph tissue, bone, paranasal sinus, salivary glands etc.
(ii) Pain arising due to C.N.S diseases:
   a) Pain due to intracranial and extracranial involvement of cranial nerves. (Multiple sclerosis, cerebrovascular diseases, trotter's syndrome etc.)
   b) Neuralgic pain due to unknown causes: Trigeminal neuralgia, glossopharyngeal neuralgia, sphenopalatine ganglion neuralgia, periodic migrainous neuralgia and atypical facial pain.
(iii) Referred pain: Pain arising from distant tissues like heart , spine etc.

5) Altered sensations: Cacogeusia, halitosis.

6) Tongue in local and systemic disorders: (Aglossia, ankyloglossia, bifid tongue, fissured tingue, scrotal tongue, macroglossia, geographic tongue, median rhomboid glossitis, depapillation of tongue, hairy tongue, atrophic tongue, reactive lymphoid hyperplasia, glossodynia, glossopyrosis, ulcers, white and red patches etc.)

7) Oral manifestations of:
(i) Metabolic disorders:
(a) Porphyria
(b) Haemochromatosis
(c) Histocytosis X diseases

(ii) Endocrine Disorders:
(a) Pituitary: Gigantism acromegaly, hypopituitarism
(b) Adrenal Cortex: Addison's disease (Hypofunction)
Cushing's Syndrome (Hypofunction)
(c) Parathyroid gland: (Hypothyroidism)
(d) Thyroid gland: (hypothyroidism) Cretinism, myxoedema
(e) Pancreas: Diabetes
(iii) Nutritional deficiency: Vitamins: riboflavin, nicotinic acid, folic acid vitamin B12, Vitamin C (Scurvy)
(iv) Blood disorders:

(a) Red Blood cell diseases
Deficiency anaemias: (Iron deficiency, Plummer – Vinson syndrome, pernicious anaemia)
Haemolytic anaemias: (Thalassemia, sickle cell anaemia, erythroblastosis foetalis)
Aplastic Anaemia
Polycythemia

(b) White Blood cell diseases
Neutropenia, cyclic neutropenia, agranulocytosis, infectious mononeucleosis and leukemias.

(c) Haemorrhagic disorders:
Thrombocytopenia, purpura, haemophillia, christmas disease and Von Willebrant's disease.

8) Disease of salivary glands:
(i) Development disturbances: Aplasia, atresia and aberration
(ii) Functional disturbances: Xerostomia, ptyalism
(iii) Inflammatory conditions: Nonspecific sialadenitis, mumps, sarcoidosis heerdfort's syndrome (Uveoparotis fever), Necrotising sialometaplasia.
(iv) Cysts and tumours: Mucocele, ranula, pleomorphic adenoma, mucoepidermoid carcinoma
(v) Miscellaneous: Sialolothiasis, Sjogren's syndrome, mikuliez's disease and sialosis.

9) Dermatological diseases with oral manifestations:
(a) Ectodermal dysplasia
(b) Hyperkertosis palmarplantaris with periodontoopathy
(c) Scleroderma
(d) Lichen planus including ginspan's syndrome
(e) Lupus erthematosus
(f) Pemphigus

(g) Erythema multiforme
(h) Psoriasis

10) Immunological diseases with oral manifestations
(a) Leukemia
(b) Lymphomas
(c) Multiple mycloma
(d) AIDS clinical manifestations, opportunistic infections, neoplasms
(e) Thrombcytopenia
(f) Lupus Erythematosus
(g) Scleroderma
(h) Dermatomyositis
(i) Submucous Fibrosis
(j) Rheumatoid arthritis
(k) Recurrent oral ulceration including behcet's syndrome and reiter's syndrome

11) Allergy: Local allergic reactions, anaphylaxis, serum sickness (local and systemic allergic manifestations to food drugs and chemicals)

12) Foci of oral infection and their ill effects on general health

13) Management of dental problems in medically compromised persons:

(a) Physiological changes: Puberty, pregnancy and menopause
(b) The patients suffering with cardiac, respiratory, liver, kidney and bleeding disorders, hypertension, diabetics and AIDS. Post-irradiated patients.

14) Precancerous lesions and conditions.
15) Nerve and muscle disease:
    (a) Nerves:
        1. Neuropraxia
        2. Neurotemesis
        3. Neuritis
        4. Facial Nerve Paralysis including Bell's Palsy, Heerfordt's syndrome, Melkerson Rosenthel syndrome and Ramsay Hunt syndrome
        5. Neuroma
        6. Neurofibromatosis
        7. Frey' syndrome
    (b) Muscles:
        1. Mytosis ossificans
        2. Myofascial pain dysfunction syndrome
        3. Trismus

16) Forensic Odontology:
    1. Medicolegal aspects of orofacial injuries
    2. Identification of bite marks
    3. Determination of age and sex
    4. Identification of cadavers by dental appliances, restorations and tissue remnants.

17) Therapeutics: General therapeutics measures – drugs commonly used in oral medicine viz. antibiotics, chemotherapeutics agents, anti-inflammatory and analgesic drugs, astringents, mouth washes, syptics, demelucents, local surface anaesthetics, sialogogues, antisialogogues and drugs used in the treatment of malignancy.

PART B

PART-II BEHAVIOURAL SCIENCES AND ETHICS

PART- III ORAL RADIOLOGY

1) Scope of the subject and history of origin.
2) Physics of radiation:
    a) Nature and types of radiations
    b) Source of radiations
    c) Production of X-rays
    d) Properties of X-rays
    e) Compton effect
    f) Photoelectric effect
    g) Radiation measuring units
3) Biological effects of radiation
4) Radiation safety and protection measures
5) Principles of image production
6) Radiographic techniques:
    a) Intra-Oral:
        1. Periapical radiographs(Bisecting and parallel technics)
        2. Bite wing radiographs

3. Occlusal radiographs

b) Extra-Oral:
   1. Lateral projections of skull and jaw bones and paranasal sinuses
   2. Cephalograms
   3. Orthopantomograph
   4. Projections of temperomandibular joint and condyle of mandible
   5. Projections for Zygomatic arches

c) Specialized techniques:
   1. Sialography
   2. Xeroradiography
   3. Tomography

7) Factors in production of good radiographs:
   1. K.V.P and mA of X-ray machine
   2. Filters
   3. Collimations
   4. Intensifying screens
   5. Grids
   6. X-Ray Films
   7. Exposure time
   8. Techniques
   9. Dark Room
   10. Developer and fixer solutions
   11. Film Processing

8) Radiographic normal anatomical landmarks
9) Faculty radiographs and artifacts in radiographs
10) Interpretation of radiographs in various abnormalities of teeth, bones and other orofacial tissues.
11) Principles of radiotherapy of oro-facial malignancies and complications of radiotherapy
12) Contrast radiography and basic knowledge of radio-active isotopes
13) Radiography in Forensic Odontology – Radiographic age estimation and post mortem radiographic methods.

PRACTICALS / CLINICS:

1. Students is trained to arrive at proper diagnosis by following a scientific and systematic procedure of history taking and examination of the orofacial region. Training is also imparted in management wherever possible. Training also shall be imparted on saliva diagnostic procedures. Training also shall be imparted in various radiographic procedures and interpretation of radiographs.

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 of prescribed work for recording
   (a) Recording of detailed case histories of interesting cases.....10
   (b) Intra-oral radiographs (Periapical , bitewing, occlusal).....25
   (c) Saliva diagnostic check as routine procedure.

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) Hutchinston – clinical methods
8) Oral Oathology – Shafers
9) Sonis S.T , Fazio.R.C and Fang.L – Principles and practice of Oral Medicine

b) Oral Radiology

1) White & Goaz – Oral Radiology – Mosby year Book
2) Weahrman – Dental Radiology – C.V Mosby Company
3) Stafne – Oral Roenthenographic Diagnosis – W.B Saunders Co.

c) Forensic Odontology

1) Derek H.Clark – Practical Forensic Odontology – Butterworth – Heinemann (1992)
2) C Michael Bowers, Gary Bell – Manual of Forensic Odontology – Forensic Pr.(1995)

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UNIVERSITY OF JAMMU
SYLLABUS FOR FINAL PROF. B.D.S

ORTHODONTICS & DENTOFACIAL ORTHOPEADICS

Scheme of Examination is as under:-

Theory paper consisting of two parts:-	Part A 35 Marks (for Internal Examiner)
	Part B 35 Marks (for External Examiner)
Duration of Examination 03 Hours	Part A 1 ½ Hours
	Part B 1 ½ Hours

COURSE OBJECTIVES:

Undergraduate programme in Orthodontics is designed to enable the qualifying dental surgeon to diagnose , analyze and treat common orthodontic problems by preventive, interceptive and corrective orthodontic procedures. The following basic instructional procedures will be adapted to achieve the above objectives:

PART A

1) Introduction , Definition, Historical Background, Aims and objectives of Orthodontics and Need for Orthodontic care.
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
3) 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
4) Functional Development of Dental Arches and Occlusion
   (a) Factors influencing functional development of dental arches and occlusion
   (b) Forces of occlusion
   (c) Wolfe's law of transformation of bone
   (d) Trajectories of forces
5) Clinical application of growth and development
6) Malocclusion – In General
   (a) Concept of normal occlusion
   (b) Definition of malocclusion
   (c) Description of different types of dental , skeletal and functional malocclusion
7) Classification of Malocclusion:
   Principles, description , advantages and disadvantages of classification of malocclusion by Angle, Simon , Lischer and Ackerman and Proffitt.
8) Normal and Abnormal function of stomatognathic system

9) Etiology of Malocclusion
   (a) Definition, importance, classification, local and general aetiological factors.
   (b) Etiology of following different types of malocclusion
      1. Midline diastema
      2. Spacing
      3. Crowding
      4. Cross – Bite: Anterior / Posterior
      5. Class III Malocclusion
      6. Class II Malocclusion
      7. Deep Bite
      8. Open bite

10) 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 , disadvantages
      I. Definition
      II. Description and use of cephalostat
      III. Description and uses of anatomical landmarks line and angles used in sephalometric 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

PART B

1) General Principles in Orthodontics Treatment Planning of Dental and Skeletal Malocclusions
2) Anchorage in Orthodontics – Definition, Classification, Types and stability of Anchorages
3) Biomechanical Principles in Orthodontics Tooth Movement
   (a) Different types of tooth movement
   (b) Tissue response to orthodontic force application
   (c) Age factor in orthodontic tooth movement
4) Preventive Orthodontics
   (a) Definition
   (b) Different procedures undertaken in preventive orthodontics and their limitations
5) Interceptive Orthodontics
   (a) Definition
   (b) Different procedures undertaken in interceptive orthodontics
   (c) Serial extractions: Definition, indications, contra-indication, technique, advantages and disadvantages
   (d) Role of muscle exercise as an interceptive procedure.
6) 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
   (c) Methods of gaining space in the arch : Indications, relative merits and demerits of proximal stripping, arch expansion and extractions
   (d) Extractions in Orthodontics – indications and selection of teeth for extraction.
7) Orthodontics Appliances : General

(a) Requisites for orthodontic appliances
(b) Classification , indications of removable and functiona. appliances
(c) Methods of force application
(d) Materials used in construction of various orthodontics appliances – use of stainless steel, technical considerations in curing of acrylic, principles of welding and soldering fluxes and antifluxes.
(e) Preliminary knowledge of acid etching and direct bonding.

8) Ethics

REMOVABLE ORTHODONTICS APPLIANCES

1. Components of removable appliances
2. Different types of clasps and their use
3. Different types of labial bows and their use
4. Different types of springs and their use
5. Expansion appliances in orthodontics:

i) Principles
ii) Indications of arch expansion
iii) Description of expansion appliances and different types of expansion devices and their uses
iv) Rapid maxillary expansion

FIXED ORTHODONTIC APPLIANCES

1. Definition , Indications & Contraindications
2. Component parts and their use
3. Basic principles of different techniques: Edgewise, Begg straight wire

EXTRAORAL APPLIANCES

1. Headgears
2. Chincup
3. Reverse pull headgears

MYOFUNCTIONAL APPLIANCES

1. Definition and principles
2. Muscle exercise and their uses in orthodontics
3. Functional Appliances
    a. Activators, Oral screens, Frankels function regulator, bionator twin blocks, lip bumper
    b. Inclined planes – upper and lower

9) Orthodontics Management of cleft lip and palate
10) Principles of Surgical orthodontics
Brief knowledge of correction of:
(a) Mandibular Prognathism and Retrognathism
(b) Maxillary Prognathism and Retrognathism
(c) Anterior open bite and deep bite
(d) Cross bite
11) Principles, Differential Diagnosis & 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 Psuedo Class III

12) Retention and Relapse

Definition, need for retention, causes of relapse, methods of retention, different types of retention devices , duration of retention, theories of retention.

CLINICALS AND PRACTICALS IN ORTHODONTICS

I. Basic wire bending exercise Gauge 22 or 0.7mm

1. Straightening o wires (4 Nos.)
2. Bending of a equilateral triangle
3. Bending of a rectangle
4. Bending of a square
5. Bending of a circle
6. Bending of U.V

II. Construction o Clasps (Both sides upper / lower) Gauge 22 or 0.7mm

1. 3/4 Clasp (C-Clasp)
2. Full Clasp (Jackson's Crib)
3. Adam's Clasp
4. Triangular Clasp

III. Construction of Springs (on upper both sides) Gauge 24 or 0.5mm

1. Finger Spring
2. Single Cantelever Spring
3. Double Cantelever Spring (Z- Spring)
4. T- Spring on premolars

IV. Contruction o Canine retractors Gauge 23 or 0.6mm

1. U- Loop Canine retractor
   (Both sides on upper & lower)
2. Helical Canine retractor
   (Both Sides on upper & lower)
3. Buccal Canine retractor
   -Self supported buccal canine retractor with
   (a) Sleeve-5mm wire or 24 gauge
   (b)Sleeve-19 gauge needle on any side.
4. Palatal canine retractor on upper both side
   Gauge 23 or 0.6mm

V. Labial Bow
   Gauge 22 or 0.7mm
   One on both upper and lower

CLINICAL TRAINING

NO. EXERCISE

01. Making upper Alginate impression
02. Making lower Alginate impression
03. Study Model preparation
04. 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

PRACTICAL TRAINING

Adam's Clasp on Anterior teeth Gauge 0.7 mm

1. Modified Adam's Clasp on upper arch Gauge 0.7 mm
2. High Labial bow with Apron spring on upper arch
   (Gauge of labial bow – 0.9 mm , Apron spring – 0.3 mm)
3. Coffin spring on upper arch gauge 1 mm

Appliance construction in Acrylic

1. Upper & Lower Hawley's Appliance
2. Upper Hawley's with Anterior bite plane
3. Upper habit breaking appliance
4. Upper Hawley's with posterior bite plane with 'Z' spring
5. Construction of Activator
6. Lower inclined plane / Catalan's appliance
7. Upper expansion plate with expansion screw

RECOMMENDED BOOKS

1. Contemporary Orthodontics	William R. Proffit
2. Orthodontics for dental students	White and Gardiner
3. Handbook of Orthodontics	Moyers
4. Orthodontics – principles and practice	Graber
5. Design, Construction and use of removable orthodontic appliances	C.Philip Adams
6. Clinical Orthodontics : Vol. 1 & 2	Salzmann

UNIVERSITY OF JAMMU
SYLLABUS FOR FINAL PROF. B.D.S

PAEDIATRIC AND PREVENTIVE DENTISTRY

Scheme of Examination is as under:-

Theory paper consisting of two parts:- Part A 35 Marks (for Internal Examiner)

Part B 35 Marks (for External Examiner)

Duration of Examination 03 Hours Part A 1 ½ Hours

Part B 1 ½ Hours

PART A

THEORY

1. INTRODUCTION TO PAEDODONTICS & PREVENTIVE DENTISTRY
- Definition, Scope, Objectives and importance.
2. GROWTH & DEVELOPMENT
- Importance of study of growth and development in Pedodontics
- Prenatal and Postnatal factors in growth & development
- Theories of growth & development
- Development of maxilla and mandible and related age changes.
3. DEVEOPLMENT OF OCCLUSION FROM BIRTH THROUGH ADOLESCENCE
- Study of variations and abnormalities
4. DENTAL ANATOMY AND HISTOLOGY
- Development of teeth and associated structures
- Eruption and shedding of teeth
- Teething disorders and their management
- Chronology of eruption of teeth
- Differences between deciduous and permanent teeth
- Development of dentition from birth to adolescence
- Importance of first permanent molar
5. PAEDIATRIC OPERATIVE DENTISTRY
- Principles of Pediatric Operative Dentistry
- Modifications required for cavity preparation in primary and young permanent teeth
- Various isolation techniques

- Restorations of decayed primary, young permanent and permanent teeth in children using various restorative materials like glass ionomer, composites & silver amalgam. Stainless steel, Polycarbonate & Resin Crowns

6. GINGIVAL & PERIODONTAL DISEASES IN CHILDREN.

- Normal gingival & periodontium in children
- Definition, aetiology & Pathogenesis
- Prevention & Management of gingival & periodontal diseases.

7. CHILD PSYCHOLOGY

- Definition
- Theories of child psychology
- Psychological development of children with age
- Principles of psychological growth & development while managing child patient
- Dental fear & its management
- Factors affecting child's reaction to dental treatment

8. BEHAVIOUR MANAGEMENT

- Definitions
- Types of behavior encountered in the dental clinics
- Non pharmacological & pharmacological methods of behavior management

9. PAEDIATRIC ENDODONTICS

- Principles & Diagnosis
- Classification of Pupal Pathology in primary , young permanent & permanent teeth
- Management of pulpally involved primary, young permanent & permanent teeth
  - Pulp capping – direct & indirect
  - Pulpotomy
  - Pulpectomy
  - Apexogenesis
  - Apexification
- Obturation techniques & material used for primary, young permanent & permanent teeth in children.

10. ORAL HABITS IN CHILDREN

- Definition , Aetiology & Classification
- Clinical features of digit sucking, tongue, thrusting, mouth breathing & various other secondary habits
- Management of oral habits in children

PART B

1. DENTAL RADIOLOGY RELATED TO PAEDODONTICS
2. ORAL SURGICAL PROCEDURES IN CHILDREN

- Indications and contradictions of extractions of primary and permanent teeth in children
- Knowledge of local and General Anaesthesia
- Minor surgical procedures in children

3. DENTAL CARIES

- Historical background
- Definition, aetiology & pathogenesis
- Caries pattern in primary, young permanent and permanent teeth in children.
- Rampant caries, early childhood caries and extensive caries:
- Definition, aetiology, Pathogenesis, Clinical Features, Complications & Management.
- Role of diet and nutrition in dental caries.
- Dietary modifications & diet counseling
- Caries activity, tests, caries prediction, caries susceptibility & their clinical applications.

4. TRAUMATIC INJURIES IN CHILDREN

- Classification & importance
- Sequelae & reaction of teeth to trauma
- Management of traumatized teeth

5. PREVENTIVE & INTERCEPTIVE ORTHODONTICS

- Definitions
- Problems encountered during primary and mixed dentition phases & their management
- Serial extractions
- Space management

6. DENTAL CARE OF CHILDREN WITH SPECIAL NEEDS

- Definition , Aetiology , Classification, Behavioral and clinical features & Management of children with:
- Physically handicapping conditions
- Mentally compromising conditions
- Medically compromising conditions
- Genetic disorders

7. CONGENITAL ABNORMALITIES IN CHILDREN

- Definition, Classification, Clinical features & Management

8. DENTAL MATERIALS USED IN PAEDIATRIC DENTISTRY
9. PREVENTIVE DENTISTRY

- Definition
- Principles & Scope
- Types of prevention
- Different preventive measures used in Pediatric Dentistry including pit & fissures sealants and caries vaccine.

10. DENTAL HEALTH EDUCATION & SCHOOL HEALTH PROGRAMMES
11. FLOURIDES:

- Historical background
- Systemic & Topical Flourides
- Mechanics of action
- Toxicity & Management
- Defluoridation techniques

12. CASE HISTORY RECORDING

- Outline of principles of examination, diagnosis & treatment planning.

13. SETTING UP OF PAEDODONTICS CLINIC
14. ETHICS

PRACTICALS:

Following is the recommended clinical quota for under-graduate students in the subject of Pediatric & preventive dentistry.

1. Restorations – class I & II only : 45
2. Preventive Measures e.g. Oral Prophylaxis – 20
3. Fluoride applications – 10
4. Extractions – 25
5. Case History Recording & Treatment Planning – 10
6. Education & motivation of the patients using disclosing agents. Educating patients about oral hygiene measures like tooth brushing, flossing etc.

BOOKS RECOMMENDED & REFERENCES

1. Paediatric Dentistry (Infancy through Adolescences) – Pinkham
2. Kennedy's Pediatric Operative Dentistry – Kennedy & Curzon
3. Occlusal guidance in Paediatric Dentistry – Stephen H.Wei

4. Clinical Use of Flourides – Stephen H.Wei
5. Paediatric Oral & Maxillofacial Surgery – Kaban
6. Paediatric Medical Emergencies – P.S Whatt
7. Understanding of Dental Caries – Niki Foruk
8. An Atlas of glass ionomer cements – G.J Mount
9. Clinical Pedodontics – Finn
10. Textbook of Pediatric Dentistry – Braham Morris
11. Primary Preventive Dentistry – Norman O Harris
12. Handbook of clinical Pedodontics – Kenneth D
13. Preventive Dentistry – Forrester
14. The metabolism and toxicity of Fluoride – Garry M Whitford
15. Dentistry for the Child and Adolescent – Mc.Donald
16. Pediatric Dentistry – Damle S.G.
17. Behaviour Management – Wright
18. Pediatric Dentistry – Mathewson
19. Traumatic Injuries – Andreason
20. Occlusal guidance in Pediatric Dentistry – Nakata
21. Pediatric Drug Therapy – Tomare
22. Contemporary Orthodontics – Profitt
23. Preventive Dentistry – Depaola
24. Metabolism & Toxicity of Fluoride – Whitford G.M
25. Endodontic Practice – Grossman
26. Principles of Endodontics – Munford
27. Endodntics – Ingle
28. Pathways of Pulp – Cohen
29. Management of Traumatized anterior teeth – Hargreaves.s

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UNIVERSITY OF JAMMU
SYLLABUS FOR FINAL PROF. B.D.S

PUBLIC HEATH DENTISTRY

Scheme of Examination is as under:-

Theory paper consisting of two parts:-	Part A	35 Marks (for Internal Examiner)
	Part B	35 Marks (for External Examiner)
Duration of Examination 03 Hours	Part A	1 ½ Hours
	Part B	1 ½ Hours

GOAL

To preventive and control oral diseases and promote oral health through organized community efforts.

OBJECTIVES

Knowledge:

At the conclusion of the course the students shall have a knowledge of the basis of public health, preventive dentistry, public health problems in India. Nutrition, Environment and their role in health , basics of dental statistics, epidemiological methods, National Oral Health policy.

Skill and Attitude:

At the conclusion of the course the students shall acquire the skill of identifying health problems affecting the society, conducting health surveys, conducting health education classes and deciding health strategies. Students should develop a positive attitude towards the problems of the society and must take responsibilities in providing health.

Communication abilities:

At the conclusions of the course the student should be able to communicate the needs of the community efficienctly, inform the society of all the recent methodologies in preventing oral diseases.

PART A

SYLLABUS:

1. Introduction to Dentistry: Definition of Dentistry, History of Dentistry , Scope, Aims and Objectives of Dentistry.

2. Public Health:
    i. Health & Disease: Concepts, Philosophy, Definition & Characteristics
    ii. Public Health: Definition & Concepts, History of public health
    iii. General Epidemiology: Definition , objectives , methods
    iv. Environmental Health : Concepts, principles, protections, sources, purification, environmental sanitation of water, disposal of waste, sanitation, then role in mass disorder
    v. Health Education: Definition, concepts, principles, methods and health education aids
    vi. Public Health Administration: Priority, establishment, manpower, private practice management , hospital management.
    vii. Ethics and Jurisprudence: Professional liabilities, negligence, malpractice, consents, evidence, contracts and methods of identification in Forensic dentistry.
    viii. Nutrition in oral diseases.
    ix. Behavioral Science: Definition of sociology, anthropology and psychology and their relevance in dental practice and community.
    x. Health care delivery system: Centre and state, oral health policy, primary health care, national programmes, health organizations.

PART B

Dental Public Health:

1. Definition and difference between community and clinical health.
2. Epidemiology of dental diseases dental caries, periodontal diseases, malocclusion , dental fluorosis and oral cancer
3. Survey procedures: Planning, implementation and evaluation, WHO oral health survey methods 1997, indices for dental diseases
4. Delivery of dental care: Dental auxiliaries, operational and non-operational, incremental and comprehensive health care, school dental health.
5. Payments of dental care: Methods of payments and dental insurance, government plans
6. Preventive Dentistry – definition, levels, role of individual, community and profession, fluorides in dentistry, plaque control programmes.

Research Methodology and Dental Statistics:

1. Health Information: Basic knowledge of computers, MS Office, Window 2000, Statistical Programmes

2. Research Methodology: Definition, types of research , designing a written protocol.
3. Bio-statistics: Introduction, collection of data, presentation of data, measures of Central tendency, measures of dispersion, tests of significance, Sampling and sampling techniques – types, errors, bias, blind trials and calibration.

Practice Management

1. Place and Locality
2. Premises & layout
3. Selection of equipments
4. Maintenance of records/accounts/audit

Dentist Act 1948 with amendment.

Dental Council of India and State Dental Councils.

Composition and responsibilities.

Indian Dental Association

Head Office, State, Local and branches.

PRACTICALS/CLINICALS/FIELDS PROGRAMME IN COMMUNITY DENTISTRY:

These exercise designed to help the student in IV year students:

1. Understand the community aspects of dentistry
2. Take up leadership role in solving community oral health programme.

EXCERCISES:

a) Collection of statistical data (demographic) on population in India, birth rates, morbidity and mortality, literacy, per capita income.
b) Incidence and prevalence of common oral diseases like dental caries, periodontal diseases, oral cancer, fluorosis at national and international levels.
c) Preparation of oral health education material – posters, models, slides, lectures, play acting skits etc.
d) Oral health status assessment of the community using indices and WHO basic oral health survey methods.
e) Exploring and planning setting of private dental clinics in rural, semi urban and urban locations, availment of finances for dental practices- preparing project report.
f) Visit to primary health centre-to-acquaint with activities and primary health care delivery.
g) Visit to water purification plant/ public laboratory/centre for treatment of waste and sewage water.
h) Visit to schools – to assess the oral health status of school children, emergency treatment and health education including possible preventive care at school (tooth brushing technique demonstration and oral rinse programme etc.)
i) Visit to institution for the care of handicapped, physically, mentally or medically compromised patients.

j) Preventive dentistry: in the department application of pit & fissure sealants, fluoride gel application procedure, A.R.T., Comprehensive health for 5 patients at least 2 patients.

The colleges are encouraged to involve in the N.S.S. programme for college students for carrying out social work in rural areas.

SUGGESTED INTERNSHIP PROGRAMME IN COMMUNITY DENTISTRY:

1. AT THE COLLEGE:
   Students are posted to the department to get training in dental practice management.
   i. Total oral health care approach – in order to prepare the new graduates in their approach to diagnosis, treatment planning, cost of treatment, prevention of treatment on schedule, recall maintenance of records etc. at least 10 patients (both children and adults of all types posting for at least one month)
   ii. The practice of chair side preventive dentistry including oral health education.
2. AT THE COMMUNITY OTAL HEALTH CARE CENTRE (ADOPTED BY THE DENTAL COLLEGE IN RURAL AREAS)
   Graduates posted for at least one month to familiarize in:
   i. Survey methods, analysis and presentation of oral health assessment of school children and community independently using WHO basic oral health survey methods.
   ii. Participation in rural health education programmes
   iii. Stay in the village to understand the problems and life n rural areas.
3. DESIRABLE: Learning use of computers at least basic programme.

EXAMINATION PATTERN

1. Index: Case History
   a) Oral hygiene indices simplified: Green and Vermilion
   b) Silness and Loe index for Plaque
   c) Loe and Silness index for gingival
   d) CPI
   e) DMF: T & S, df: t and s
   f) Deans Flouride index
2. Health Education
   a) Make one – Audio Visual Aid
   b) Make a health talk
3. Practical work
   a) Pit and Fissure sealant
   b) Topical Fluoride application

j) Preventive dentistry: in the department application of pit & fissure sealants, fluoride gel application procedure, A.R.T., Comprehensive health for 5 patients at least 2 patients.

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   a) Pit and Fissure sealant
   b) Topical Fluoride application

BOOKS RECOMMENDED AND REFERENCE:

1. Dentistry Dental Practice and community by David F.Striffler and Brian A.Burt, Edn. – 1983, W.B. Saunders Company.
2. Principles of Dental Public Health by James Morse Dunning IV Edition 1986, Harvard University Press
3. Dental Public Health and Community Dentistry Ed by Antony Jong Publication by the C.V Mosby Company 1981
4. Community Oral Health – A system approach by Patricia P. Cormier and Joyce I . Levy published by Appleton – Century-Crofts / New York 1981
5. Community Dentistry- A problem oriented approach by P.C Dental Hnad book series Vol. * by Stephens L. Silverman and Ames F.Tryon, Series editor – Alvin F.Gardner, PSG Publishing company Inc. Littleton Massachuseltts 1980
6. Dental Public Health- An introduction to Community Dentistry. Edited By Geoffrey L.Slack and Brian Burt, Published by John Wright and sons Bristol 1980
7. Oral Health Surveys – Basis Methods, 4th Edition, 1997, published by W.H.O Geneva available at the regional office New Delhi
8. Preventive Medicine and Hygiene – By Maxcy and Rosenau, published by Appleton Century Crofts, 1986
9. Preventive Dentistry – by J.O Forrest published by John Wright and sons Bristol, 1980
10. Preventive Dentistry by Murray, 1997
11. Text book of Preventive and Social Medicine by Park and Park , 14th Edition
12. Community Dentistry by Dr.Soben Peter
13. Introduction to Bio-Statistics by B.K Mahajan.
14. Research methodology and Bio-Statistics
15. Introduction to Statistical Methods by Grewal

UNIVERSITY OF JAMMU
SYLLABUS FOR FINAL PROF. B.D.S

PERIODONTIOLOGY

Scheme of Examination is as under:-

Theory paper consisting of two parts:-

Part A 35 Marks (for Internal Examiner)

Part B 35 Marks (for External Examiner)

Duration of Examination 03 Hours

Part A 1 ½ Hours

Part B 1 ½ Hours

OBJECTIVES:

The students shall acquire the skill to perform dental scaling , diagnostic tests of periodontal diseases; touse the instruments for periodontal therapy and maintenance of the same. The students shall develop attitude to impart the preventive measures namely , the prevention of periodontal diseases and prevention of the progress of the disease. The student shall also develop an attitude to prevent iatrogenic diseases; to conserve the tooth to the maximum possible time by maintaining periodontal health and refer the patients who require specialist's care.

PART A

1. Introduction : Definition of Periodontology, Periodontics, Periodontia, Brief historical background, scope of Periodontics.
2. Development of perio-dontal tissue , micro- structural anatomy and biology of periodontal tissue in detail Gingiva. Junctional epithelium in detail, Epithelial-Mesenchymal interaction , Periodontal , Ligament Cementum , Alveolar bone.
3. Defensive mechanisms in the oral cavity: Role of Epithelium, Gingival fluid, Saliva and other defensive mechanisms in the oral environment.

4. Age change in Periodontal structures And their significance in Geriatric dentistry.

Age changes in teeth and periodontal structures and 1 their association with periodontal diseases

5. Classification of periodontal diseases

Need for classification , Scientific basis of 1 classification
classification of gingival and periodontal diseases as
described in world workshop 1989
Gingivitis :
Plaque associated, ANUG, steroid hormone influenced, Medication influenced,
Desquamative

gingivitis, other forms of gingivitis as in nutritional
deficiency bacterial and viral infection etc.

Periodontitis :
Adult periodontitis, Rapidly progressive periodontitis
A& B, Juvenile periodontitis (localized, generalized and
post- juvenile),
Prepubertal periodontitis,
Refractory periodontis

6. Gingival diseases — Localized and generalized gingivitis, Papillary, Marginal and diffuse gingivitis — 6

Etiology , pathogenesis, clinical signs, symptoms and
management of

i) Plaque associated gingivitis.
ii) Systemically aggravated gingivitis (sex hormones, drugs and systemic diseases)
iii) ANUG
iv) Desquamative gingivitis .Gingivitis associated with lichen planus, pemphigoid, pemphigus, and other vesiculobullous lesions.
v) Allergic gingivitis.
vi) Infective gingivitis – Herpetic, bacterial and candidial.
vii) Pericoronitis.
viii) Gingival enlargement (classification and different diagnosis)

7. Epidemiology of periodontal diseases

- Definition of index, incidence,2 prevalence, epidemiology, endemic, epidemic, and pandemic
- Classification of indices (Irreversible and reversible)
- Deficiencies of earlier indices used in Periodontics.
- Detailed understanding of Siless & Loe Plaque Index , Loe & Sinless Gingival Index,
CPITN & CPI..
- Prevalence of periodontal diseases in India and
other countries
-Public health significance (all these topics are
covered at length under community dentistry.
Hence, the topics may be discussed briefly.
However questions may be asked from the topics for examination.

8.	Extension of Inflammation from gingiva	Mechanism of spread of inflammation from gingival area to deeper periodontal structure Factors that modify the spread .
9.	Pocket	Definition signs and symptoms , classification 2 pathogenesis, histopathology, root surface changes and contents of the packet.
10.	Etiology	- Dental Plaque (Biofilm) - Definition , New concept of biofilm - Types, composition, bacterial colonization, Growth, maturation & disclosing agents - Role of dental plaque in periodontal diseases. - Plaque microorganisms in detail and bacteria associated with periodontal diseases. - Plaque retentive actors - Materia alba - Food debris - Calculus - Definition - Types , composition, attachment, theories of formation - Role of calculus in disease Food Impaction - Definition - Types , Etiology - Hirschfields, classification - Signs ,symptoms & sequelae of treatment Trauma from occlusion - Definition , Types - Histopathological changes - Role in periodontal disease - Measures of management in brief Habits - Their periodontal significance - Bruxism & parafunctional habits, - tongue thrusting, lip biting occupational habits

LATROGENIC FACTORS

- Restoration
- Contact point, marginal ridge,
- surface roughness, overhanging restorations,
  interface between restoration and teeth

Posthodontics

- Interrelationship
- Bridges and other prosthesis pontics
- (types)
  , surface contour, relationships of margins to
  the peridontium, Gingival protection theory,
  muscle action theory & theory of access to
  oral hygiene.

Orthodontics

- Interrelationship, removable
- appliances &
  fixed appliances
- Retention of plaque , bacterial
- changes

Systemic diseases

- Diabetes, sex hormones, nutrition (
- Vit. C &
  proteins)
- AIDS & periodontum
- Hemorrhagic diseases, Leukemia,
- Clothing
  factor disorders, PMN disorders.

11. Risk factors — Definition. Risk factors for periodontal diseases
12. Host response

- Mechanism of initiation and progression of periodontal diseases
- Basic concepts about cell, Mast cells,
- neutrophils
  Macrophages, lymphocytes, immunoglobulins,
  complement system, immune,
  mechanisms &
  cytokines in brief
- Stages in gingivitis – Initial , early,
- established &
  advanced
- Periodontal disease activity, continuous
- paradigm,
  random burst & asynchronous multiple burst Hypothesis

13. Periodontitis

- Etiology, histopathology, clinical signs & Symptoms, diagnosis and treatment of adult periodontitis.
- Periodontal abscess; definition,
- classification,
  pathogenesis, differential diagnosis an treatment
- Furcation involvement, Glickman's
- classification,
  prognosis and management
- Rapidly progressive peridontitis
- Juvenile periodontits: Localized and
- generalized
- Post –juvenile periodontitis.

14. Diagnosis

- Routine procedures, methods of probing, types of probes, (According to case history).
- Halitosis : Etiology and treatment .
- Mention
  advanced diagnostic aids and their role in brief.

15. Prognosis

- Definition , types, purpose and factors to be taken 1
  into consideration.

PART B

1. Treatment plan
2. Periodontal therapy therapy. Phases

- Factors to be considered
  A. General principles of periodontal

I,II,III,IV therapy.
Definition of periodontal regeneration, repair
new attachment and reattachment.

B. Plaque control
i. Mechanical tooth brushes, interdental cleaning
aids, dentifrices
ii. Chemical ; classification and
mechanism of action
of each & pocket irrigation

3. Pocket eradication Procedures

- Scaling and root planning:
- Indications
- Aims & objectives
- Healing following root planning
- Hand instruments, sonic, ultrasonic & piezo
  electric scalers
- Curettage & present concepts
- Definition
- Indications
- Aims & objective
- Procedure & healing response
- Flap surgery

- Definition
- Types of flaps, Design of flaps , papilla preservation
- Indications & contraindications
- Armamentarium
- Surgical procedure & healing response.

4. Osseous Surgery
- Osseous defects in periodontal disease
- Definition
- Classification
- Surgery : respective, additive osseous surgery
(osseous gains with classification o grafts)
- Healing responses
- Other regenerative procedures; root conditioning
- Guided tissue regeneration

5. Mucogingival surgery & periodontal plastic classification Surgeries
Definition
Mucogingival problems : etiology, of gingival recession (P.D. Miller Jr. and Sullivan and Atkins)
indications & objective
Gingival extension procedures: lateral pedicle graft, frenectomy, frenotomy
Crown lengthening procedures
Periodontal microsurgery in brief

6. Splints
- Periodontal splints
- Purpose & classification
- Principles of splinting

7. Hypersensitivity
Cause, Theories & management

8. Implants
Definition types , scope & biomaterials used
Periodontal considerations: such as implant – bone interface, implant –gingival interface, implant failure, peri- implantitis & management.

9. Maintenance phase (SPT)
- Aims objective , and principles
- Importance
- Procedures
- Maintenance of implants

10. Pharmaco-theapy
- Periodontal dressing
- Antibiotics & anti-inflammatory
- drugs
- Local drug delivery system

11. Periodontal management Management of medically Compromised patients
Topic concerning periodontal
Management of medically Compromised patients

12. Inter – disciplinary care
- Pulpo- periondontal involvement
- Routes of spread of infection
- Simons' classification
- Management

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13. Systemic effects of periodontal diseases in brief
Cardiovascular diseases, Low birth eight babies etc.

14. Infection control protocol procedures
Sterilization and various aseptic

15. Ethics

TUTORIALS DURING CLINICAL POSTING:

1.Infection control
2.Periodontal instruments
3.Chair position and principles of instrumentation
4.Maintenance of instruments (sharpening)
5.Ultrasonic, Piezoelectric and sonic scaling – demonstration of technique
6.Diagnosis of periodontal disease and determination of prognosis
7.Radiographic interpretation and lab investigations
8.Motivation of patients – oral hygiene instruction

Students should be able to record a detailed periondontal case history , determine diagnosis, prognosis and plain treatment . Student should perform scaling, root planning local drug delivery and SPT. Shall be given demonstration of all periodontal surgical procedures.

DEMONSTRATIONS:

1. History taking and clinical examination of the patients
2. Recording different indices
3. Methods of using various scaling surgical instruments
4. Polishing the teeth
5. Bacterial smear taking
6. Demonstration to patients about different oral hygiene aids
7. Surgical procedures- gingivectomy , gingivoplasty, and flap operations
8. Follow up procedures, post , operative care and supervision

REQUIREMENTS:

1.Diagnosis, treatment planning and discussion and total periodontal treatment.
2.Case
3.Dental scaling , oral hygiene instructions- 50 complete case/equivalent
4.Assistance in periodontal surgery- 5 case
5. A work record should be maintained by all the students and should be submitted at the time of examination after due certification from the head of the department.

Students should have to complete the work prescribed by the concerned department from time to time submit a certified record for evaluation.

PRESCRIBED BOOK:

1.Glickman,s clinical Periodotology- Carranza

REFERNCE BOOKS

1.Essentials of periodontology and periodontics –Torquil macPhee
2. Contemporary periodontics –Cohen
3.Periodontal therapy – Goldman
4.Orban's periodontics- Orban
5.Oral Health Survey- W.H.O.
6.Preventive Periodontics- Yng and Stiffler
7.Public Health Dentistry – Slack
8.Advanced Periodontal Disease – John Prichard
9.Preventive Dentistry –Forrest
10. Clinical PEriodontology- Jan Lindhe
11. Periodontics –Baer & Morris

UNIVERSITY OF JAMMU
SYLLABUS FOR FINAL PROF. B.D.S

PROSTHODONTICS AND CROWN &BRIDGE

Scheme of Examination is as under:-

Theory paper consisting of two parts:-	Part A	35 Marks (for Internal Examiner)
	Part B	35 Marks (for External Examiner)
Duration of Examination 03 Hours	Part A	1 ½ Hours
	Part B	1 ½ Hours

PART A

Complete Dentures

A. Applied Anatomy and Physiology
   1. Introduction
   2. Biomechanics of the edentulous state.
   3. Residual ridge resorption
B. Communicating with the patent
   Understanding the patients.
   Mental attitude.
   Instructing the patient.
C. Diagnosis and treatment planning for patients-
   1. With some teeth remaining
   2. with no teeth remaining.
   a) systemic status.
   b) Local factor.
   c) Diagnostic procedures.
   d) The Geriatric Palicut

D. Articulators –discussion
E. Improving the patient's denture foundation and ridge relation-an overwise
   a) Pre- operative examination.
   b) Initial hard & soft tissue procedures.
   c) Secondary hard & soft tissue procedure
   d) Implant procedures.
   e) Congenital deformities.
   f) Postoperative procedure.
F. Principles of Retention, Support and Stability
G. Impressions- Detail.
   a) Muscles of facial expression.
   b) Biologic considerations for maxillary and mandibular impression including anatomy landmark and their interpretation.
   c) Impression objective.
   d) Impression materials.
   e) Impression techniques.
   f) Maxillary and mandibular impression procedures.
      i. Preliminary impressions
      ii. Final impressions

g) Laboratory procedures involved with impression making (Beading & boxing , and cast impressions)

H. Record bases and occlusion rims –in detail.
   a) Materials & techniques.
   b) Useful guidelines and idea parameters.
   c) Recording and transferring bases and occlusal rims.

I. Biological consideration in jaw relation & jaw movements – craniomandibular relations.
   a) Mandibular movements.
   b) Maxilla-mandibular relation including vertical and horizonational jaw relation.
   c) Concept of occlusion –discuss in brief.

J. Relating the patient to the articulator.
   a) Face bow types & uses-discuss in brief.
   b) Face bow transfer procedure – discuss in brief.

K. Recording maxilla mandibular relation.
   a) Vertical relations.
   b) Centric relation records.
   c) Eccentric relation records.
   d) Lateral relation records.

L. Tooth selection and arrangement.
   a) Anterior teeth .
   b) Posterior teeth.
   c) Esthetic and functional harmony.

M. Relating inclination of teeth to concept o occlusion – in brief
   a) Neutrocentric concept.
   b) Balanced occlusal concept.

N. Trial dentures.

O. Laboratory procedures.
   a) Wax contouring.
   b) Investing of dentures.
   c) Preparing of mold.
   d) Preparing & packing acrylic resin.
   e) Processing of dentures.
   f) Recovery of dentures.
   g) Lab remount procedures.
   h) Recovering the complete denture from the cast.
   i) Finishing and polishing the complete denture.
   j) Plaster cast for clinical denture remount procedure.

P. Denture insertion.
   a) Insertion procedures.
   b) Clinical errors.
   c) Correcting occlusal disharmony.
   d) Selective grinding procedures.

R. Treating problems with associated denture use- discuss in brief (tabulation / flow chart form).

S. Treating abused tissue – discuss in brief.

T. Relining and rebasing of dentures- discuss in brief.

V. Immediate complete denture construction procedure in brief.

W. The single complete denture- discuss in brief.

X. Overdentures- discuss in brief.

Y. Dental implants in complete dentures- discuss in brief.

Yours truly,

Note : It is suggested that the above mentioned topics be dealt with wherever appropriate in the following

order so as to cover-

1. Definition .
2. Diagnosis (of the particular situation/ patient selection/ treatment planning)
3. Types / Classification
4. Materials
5. Methodology – lab / Clinical
6. Advantages & disadvantages
7. Indications, contraindications
8. Maintenance Phase
9. Oral Implantology
10. Ethics

AESTHETIC DENTISTRY

Aesthetic Dentistry is gaining more popularity since last decade. It is better that undergraduate students should understand the philosophy and scientific knowledge of the aesthetic dentistry:

1. Introduction and scope of aesthetic dentistry
2. Anatomy & Philosophy of smile.
3. Role of the colour in aesthetic dentistry
4. Simple procedures (roundening of central incisors to enhance aesthetic appearance)
5. Bleaching of teeth
6. Veneers with various materials
7. Preventive and interceptive aesthetics
8. Ceramics
9. Simple gingival contouring to enhance the appearance

RECOMMENDED BOOKS:

1. Esthetics guidelines for restorative dentistry ; Scharer & others
2. Esthetics of anterior Prosthodontics; Chiche (GJ) & Pinault (Alain)
3. Esthetics & treatment of facial form. Vol 28 ; Mc Namara (JA)

PART B

Removable Flexible Dentures

1. Introduction
   - Terminologies and scope
2. Classification.
3. Examination, Diagnosis & treatment planning & evaluation of diagnostic data.
4. Components of a removable partial denture.
   - Major connectors,
   - Mino connectors,
   - Rest and rest seats.
5. Components of a removable Partial Denture.
   - Direct retainers,
   - Indirect retainers,
   - Tooth replacement.
6. Principles of Removable Partial Denture Design.
7. Survey and design- in brief.
   - Surveyors.
   - Surveying
   - Designing

8. Mouth preparation and master cast.
9. Impression materials and procedures for removable partial dentures.
10. Preliminary jaw relation and aesthetic try – in for some anterior replacement teeth.
11. Laboratory procedures for framework construction – in brief.
12. Fitting the framework – in brief.
13. Try- in of the partial denture – in brief.
14. Completion of the partial denture- in brief.
15. Inserting the Removable partial Denture – in brief.
16. Post – insertion observations.
17. Temporary Acrylic Partial Dentures.
18. Immediate Removable partial Denture.
19. Removable Partial dentures opposing complete denture.

Note : It is suggested that the above mentioned topics be dealt with wherever appropriate in the Following order so as to cover-

1. Definition
2. Diagnosis (of the particular situation /patient selection/ treatment planning)
3. Types / Classification
4. Materials
5. Methodology – lab / Clinical
6. Advantages & disadvantages
7. Indications, contraindications
8. Maintenance Phase

Fixed Partial Dentures

Topics To Be Covered In Detail-

1. Introduction
2. Fundamentals of occlusion – in brief.
3. Articulators – in brief.
4. Treatment planning for single tooth restorations.
5. Treatment planning for the replacement of missing teeth including selection and choice of abutment teeth.
6. Fixed partial denture configurations.
7. Principles of tooth preparations.
8. Preparations for full veneer crowns – in brief.
9. Preparation for partial veneer crowns – n brief.
10. Provisional restorations.
11. Fluid Control and Soft Tissue Management.
12. Impression.
13. Working Casts and Dies.
14. Wax Patterns
15. Pontics and Edentulous Ridges
16. Aesthetic considerations.
17. Finishing and cementation

Topics To Be Covered In Brief-

1. Solder joints and Other Connectors
2. All – Ceramic Restorations
3. Metal- Ceramic Restorations
4. Preparations of intracoronal restorations.
5. Preparations for extensively damaged teeth.

8. Investing and casting
9. Resin – Bonded Fixed Partials dentures.

Note : It is suggested that the above mentioned topics be dealt with wherever appropriate in the following order so as to cover-

1. Definition
2. Diagnosis (of the particular situation/ patient selection/ treatment planning_
3. Types / Classifications
4. Materials
5. Methodology – Lab / Clinical
6. Advantages 7 disadvantages
7. Indications, contraindications
8. Maintenance Phase.

RECOMMENDED BOOKS :

1. Syllabus of complete denture by – Charles M. Heart well Jr. and Arthur O. Rahn.

Boucher's" Prosthodontic treatment for edentulous patients"

Essentials of complete denture prosthodontics by – Sheldon Winkler.

Maxillofacial prosthetics by – William R. Laney.

McCraken's Removable partial prosthodontics

Removable partial prosthodontics by – Enest L. Miller and Joseph E. Grasso.

FORENSIC ODONTOLOGY (30 hrs OF INTRODUCTION)

Definition

Forensic is derived from the latin word forum, which means 'court of law'. Odontology literally implies 'the study of teeth'. Forensic odontology, therefore, has been defined by the Federation Dentaire International (FDI) as "that branch of dentistry which , in the interest of justice, deals with the proper handling and examination of dental evidence, and with the proper evaluation and presentation of dental findings."

Objectives of the undergraduate curriculum

At the end of the programme, the dental graduate should:

1. Have sound knowledge of the theoretical and practical aspects of forensic odontology.
2. Have an awareness of ethical obligations and legal responsibilities in routine practice and forensic casework.
3. Be competent to recognize forensic cases with dental applications when consulted by the police forensic pathologist, lawyers and associated professionals.
4. Be competent in proper collection of dental evidence related to cases of identification, ethnic and sex differentiation, age estimation and bite marks.
5. Be able to assit in analysis, evaluation and presentation of dental facts within the realm of law.

Curriculum for Forensic odontology

1. Introduction to Forensic Dentistry
    - Definition and history
    - Recent developments and future trends
2. Overview of Forensic medicine and toxicology
    - Cause of death and postmortem changes
    - Toxicological manifestations in teeth and oral tissues
3. Dental identification
    - Definition
    - Basis for dental identification
    - Postmortem procedures
    - Dental record complication and interpretation
    - Comparison of data and principles of report writing
    - Identification in disasters and handling incinerated remains
    - Postmortem changes to oral structures
4. Maintaining dental records
    - Basic aspects of good record keeping

Different types of dental records

Dental Chair

Dental Radiographs

Study casts

Denture making

Photographs

Dental notations

Relevance of dental records in forensic investigation

5. Age Estimation
   - Age estimation in children and adolescents
     - Advantages of tooth calcification over 'eruption' in estimating age
     - Radiographic methods of Schour & Massler, Demirjian et al.
   - Age estimation in adults
     - Histological methods – Gustafson's six variables and Johanson's modification, Bang & Ramm's dentine translucency
     - Radiographic method of Kvaal et al.
     - Principles of report writing
6. Sex Differentiation

   Sexual dimorphism in tooth dimensions (Odontometrics)
7. Ethnic variations ('racial differences) in tooth morphology

   Description of human population groups

   Genetic and environmental influences on tooth morphology

   Description of metric and non-metric dental features used in ethnic differentiation
8. Bite mark procedures
   - Definition and classification
   - Basis for bite mark investigation
   - Bite mark appearance
   - Macroscopic and microscopic ageing of bite marks
   - Evidence collection from the victim and suspect of bite marks
   - Analysis and comparison
   - Principles of report writing
   - Animal bite investigation
9. Dental DNA methods
   - Importance of dental DNA evidence in forensic investigations
   - Types of DNA and dental DNA isolation procedures
   - DNA analysis in personal identification
   - Gene-linked sex dimporhism

- Population genetics

10. Jurisprudence and ethics
    - Fundamentals of law and the constitution
    - Medical legislation and statutes (Dental and Medical Council Acts, etc.)
    - Basics of civil law (including torts, contracts and consumer protection act)
    - Criminal and civil procedure code (including expert witness requirement)
    - Assessment and quantification of dental injuries in court of law
    - Medical negligence and liability
    - Informed consent and confidentiality
    - Rights and duties of doctors and patients
    - Medical and dental ethics (as per Dentists Act)

Theory Sessions and Practical Exercises

Total hours for the course
- Didactic – 10 -12 hours
- Practical – 20-25 hours

Detailed didactic sessions for the above components, either in the form of lecturers or as structurec – teacher interactions, is essential. Specialists from multiple disciplines, particularly from le forensic sciences, can be encouraged to undertake teaching in their area of expertise.

An interactive, navigable and non-linear (INN) model may also be utilized for education.
Practical exercise (real-life casework and / or simulated cases) must complement didactic ses facilitate optimal student understanding of the subject. Mandatory practical training in dental ident methods, dental profiling (ethnic and sex differences, radiographic age estimation) and bi procedures, is of paramount importance. In addition, practice exercise/ demonstrations in histolog estimation, comparative dental anatomy, DNA methods, medical autopsy, court visits and othe may be conducted depending on available expertise, equipment and feasibility.

Approach to teaching forensic odontology
Forensic odontology could be covered in two separate streams. The division include a preclinica and a clinical stream.
Preclinical stream
- Introsuction to Forensic odontology
- Sex differences in odontometrics
- Ethnic variations in tooth morphology
- Histological age estimation
- Dental DNA methods

- Bite marks procedures
- Overview of forensic medicine and toxicology.

It could prove useful to undertake the preclinical stream in II or III year under Oral Biolo Pathology since these aspects of Forensic odontology require grounding in dental morpholo histology and basic sciences which students would have obtained in I and / or II BDS.

Clinical stream

- Dental Identification
- Maintaining dental records
- Radiographic age estimation
- Medical jurisprudence and ethics.

It would be suitable to undertake these topics in the IV or V year s part of Oral Medicine and F since students require reasonable clinical exposure and acumen to interpret dental records perfo postmortems and analyze dental radiographs for age estimations.

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ORAL IMPLANTOLOGY (30 hours OF INSTRUCTION)

(15)

INTRODUCTION TO ORAL IMPLANTATION

Oral Implantology is now emerged as a new branch in dentistry world wide and it has been given separate status in the Universities abroad. In India day to day the practice of treating patients wi implants are on rise. In this contest inclusion of this branch into undergraduate curriculum has becon very essential. The objective behind this is to impart basic knowledge of Oral Implantology undergraduates and enable them to diagnose, plan the treatment and to carry out the needed pre surgic mouth preparations and treat or refer them to especially centers. This teaching programme may be divide carried out by the department of Oral Surgery, Prosthodontics and Periodontics.

1. History of implants their design & surface characteristics and osseo – integration
2. Scope of Oral & Maxillofacial implantology & Terminologies
3. A brief introduction to various implant systems in practice
4. Bone biology, Morphology, Classification of bone and its relevance to implant treatment and bor augmentation materials.
5. Soft tissue considerations in implant dentistry
6. Diagnosis and treatment planning in implant dentistry
   Case history taking / Examination / Medical evaluation/ Orofacial evaluation/Radiograph evaluation / Diagnostic evaluation/ Diagnosis and treatment planning / treatment alternative Estimation of treatment Costs/ patient education and motivation.
7. Pre-surgical preparation of patient
8. Implant installation & armamentarium for the Branemark system as role model
9. First stage surgery – Mandible – Maxilla
10. Healing period & second stage surgery
11. Management of surgical complications & failures
12. General considerations in Prosthodontic reconstruction & Bio-Mechanics
13. Prosthodontics components of the Branemark system as role model.
14. Impression procedures & preparation of master cast
15. Jaw relation records and construction of suprastructure with special emphasis on occlusion fi Osseo integrated prosthesis
16. Management of Prosthodontic complications and failure
17. Recall & maintenance Phase.

Criteria for success of osteointegrated implant supported prosthesis

SUGGESTED BOOKS FOR READING

1. Contemporary Implant Dentistry - Carl . E.Misch
   Mosby 1993 First Edition
2. Osseointegration and Occlusal Rehabilitation Hobo S.,Ichida E. and
   Quintessence Publishing Company, 1989

BEHAVIOURAL, SCIENCES (20 hrs of instruction)

GOAL:

The aim of teaching behavioral sciences to undergraduate student is to impart such knowledg skills that may enable him to apply principles of behaviour-

i. For all round development of his personality

ii. In various therapeutic situations in dentistry.

The student should be able to develop skills of assessing psychological factors in each patient,expla stress, learning simple counseling techniques, and improving patients compliance behavior.

OBJECTIVE:

A) KNOWLEDGE & UNDERSTANDING:

At the end of the course , the student shall be able to:

1) Comprehend different aspects of normal behavior like learing , memory , motiva personality & intelligence.
2) Recognize different between normal and abnormal behavior.
3) Classify psychiatric disorders in dentistry.
4) Recognize clinical manifestations of dental phobia , dental anxiety , facial pain orofi manifestations of psychiatric disorders, and behavioural problems in children. Addi disorders, psychological disorders in various dental departments.
5) Should have understanding of stress in dentistry and knowledge of simple counse techniques.
6) Have some background knowledge of interpersonal , managerial and problem sol skills which are an integral part of modern dental practice.
7) Have knowedge of social context of dental care.

SKILLS

The student shall be able to :

1) Interview the patient and understand different methods of communication skills in dentist – pa relationship.
2) Improve patients compliance behaviour.
3) Develop better interpersonal , managerial and problem solving skills.
4) Diagnose and manage minor psychological problems while treating dental patients.

INTEFRATION

The training in Behavioural Science shall prepare the students to deliver preventive, promotive , cur and rehabilitative services to the care of the patients both in family and community and refer adva cases to speialised psychiatric hospitals.

Traning should be integrated with all the departments of Dentistry, Medicine, Pharmcology, Physic and Biochemistry.

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PSYCHOLOGY:

1. Defintion & Need of Behavioural Sciences.. Determinants of Behavior. Hrs 1
   Scope of Behavioural Sciences.
2. Sensory process & perception perceptual process- clinical applications.
3. Attention- Definition – factors that determine attention. Clinical application.
4. Memory – Memory process- Types of memory , Forgetting:
   Methods to improve memory , Clinical assessment of memory & clinical applications.
5. Definition – Laws of Learing
   Types of learning . Classicalconsitioning , operant conditioning , cognitive leanring , Insight learning , social learning observational learning , principles of learning – Clinical application.
6. Intelligence- Definition : Nature of intelligences stability of intelligence
   Derterminants of intelligence , clinical application.
7. Thinking – Definition : Types of thinking, delusions, problem sloving.
8. Motivation- Definition : Motive , drive , needs classifications of motives.
9. Emotions -- Definition differentiation from feeling – Role of hypothalamus, Cerebralcortex, adrena glands ANS. Theories of emotion , Types of emotions. Personality Assessment of persionality Questionnaires , Personality inventory, rating scales, Interview projectives techniques- Roshach ink blot test, RAT, CAT.

SOCIOLOGY :

Social class , social groups- family , types of family , types of marriages, communities and nation and institutions.

REFERENCE BOOKS:

1. General psychology—S.K. Mangal
2. General psychology—Hans Raj, Bhatia
3. General psychology—Munn
4. Behavioural Sciences in Medical practice—Manju Mehta
5. Sciences basic to patchiatry –Basanth Puri & Peter J Tyrer

ETHICS (20 hrs. of instruction)

Introduction

There is a definite shift now from the traditional patient and doctor relationship and delivery of dental care With advances in sciences and technology and the increasing needs of the patient , their families and community ,there is a concern for to health of the community as whole There is a shift to greater accountability to the society . Dental specialists like other health professionals are confronted with many ethical problems. It is therefore absolutely necessary for each and every one in health care delivery to prepare themselves to deal with these problems. To accomplish this and develop human values the Council desires that all the trainees undergo ethical sensitization by lectures or discussion on ethical issue, discussion on case with an important ethical component.

Course content :

Introduction to ethics-

- What is ethics?
- What are values and norms?
- How to form a value system in one's personal and professional life?
- Hippocratic oath.
- Declaration of Helsinki, who declaration of Geneva , International code of ethics, DCI Code of ethics.

Ethics of the individual

- The patient as a person
- Truth and confidentiality
- Autonomy of decision
- Doctor Patient relationship

Profession Ethics-

- Code of conduct
- Contract and confidentiality
- Prescription of drugs
- Over – investigating the patient
- Malpractice and negligence

Research Ethics-

- Animal and experimental research / humanness
- Human experimentation
- Human volunteer research – informed consent
- Drug trials

Ethical workshop of cases gathering all scientific factors

Gathering all scientific factors

Gathering all value factors

Indentifying areas of value – conflict , setting of priorities.

Working our criteria towards decisions

Recommended Reading:

Medical Ethics , franies C.M., I Ed . 1993 , Jaypee brothers, New Delhi p. 189