PROSTHODONTICS AND CROWN & BRIDGE

1. NON-SURGICAL AND SURGICAL METHODSOFPROSTHODONTICSANDIMPLANTOLOGY

A) Complete Denture Prosthesis

1 Definitions

2 Terminologies, G.P.T., Boucher's clinical dental terminology

3 The Cranio Mandibular system and its functions,

4 Reasons for loss of teeth,

5 Consequences of loss of teeth

6 Treatment modality with various restorations and replacements

7 **Edentulous Predicament**,

i Biomechanics of the edentulous state,

iiSupportmechanism for the natural dentition and complete dentures,

iii Biological considerations,

iv Functional and Para functional considerations,

v Esthetic, behavioral and adaptive responses,

vi Temporomandibular jointschanges.

8 **Effects of aging of edentulous patients**

i. Aging populationdistributionedentulism in old age

ii. Impact of age on edentulous mouth – Mucosa, Bone, saliva, jaw movements in old age,
taste and smell, nutrition, aging, skin and teeth, concern for personal appearance in ldage

9 **Sequelae caused by wearing complete denture**

i. Mucosal reactions,

ii. Altered taste perception,

iii Burning mouth syndrome,

iv Gagging,

v. Residual ridge (reduction) resorption,

vi. Denture stomatitis,

vii Flabby ridge,

viiiDenture irritation hyperplasia,

ix Traumatic Ulcers,

x Oral cancer in denture wearers,

xi Nutritional deficiencies,

xii Masticatory ability and performance,

xiii Nutritional status and

xiv Masticatoryfunctions.

10 **Temporomandibulardisorders in edentulous patients** –

i. Epidemiology,

ii Etiology and

iii Management,

iv Pharmacotherapy,

v Physical andBio-behavioralmodalities

11 **Nutrition Care for the denture wearing patient** –

i. Impact of dental status onfood intake

ii. Gastrointestinal functions

iii. Nutritional needs and status of older adults

iv. Calcium and bone health

v. Vitamin and herbal supplementation

vi. Dietary counseling

vii. Risk factor for malnutrition in patients with dentures

viii. When teeth areextracted

12 **Preparing patient for complete denture patients** –

i. Diagnosis and treatment planning for edentulous and partially edentulous patients

- Familiarity with patients
- Principles of perception
- Health questionnaires
- Identification data
- Problem identification
- Prognosis and treatment identification data
- Problem identification,

Ii Prognosis and treatment planning

- Contributing history
- Patient's history
- Social information
- Medical status
- Systemic status with special reference to debilitating diseases
- Diseases of the joints
- Cardiovascular disorders
- Diseases of the skin
- Neurological disorders
- Oral malignancies

- Climacteric
- Use of drugs
- Mental attitude
- Psychological changes
- Adaptability
- Geriatric changes
- Intra oral changes
- Intra oral health (mucus membrane, alveolar ridges, palate and vestibular sulcus and dental health)

13 Data collection and recording (visual observation, radiography, palpation, measurement of sulci or fossae, extra oral measurement, the vertical dimension of occlusion, diagnostic casts).

14 Specific observations

i. Existing dentures
ii. Soft tissue health
iii. Hard tissue health – teeth, bone

15 Biomechanical considerations

i. Jaw relations
ii. Border tissues
iii. Saliva
iv. Muscular development (muscle tone, neuromuscular co-ordination, tongue, cheek and lips).

16 Interpreting diagnostic findings and treatment planning

17 Immediate Denture

a) Advantages
b) Disadvantages
c) Contraindications
d) Diagnosis, treatment planning
e) Prognosis
f) Explanation to the patient
g) Oral examinations
h) Examination of existing prosthesis
i) Tooth modification
j) Prognosis
k) Referrals/adjunctive care
l) Oral prophylaxis and other treatmentneeds.

18 First visit-

a) Preliminary impressions and diagnostic casts,
b) Management of loose teeth
c) Custom trays
d) Final impressions and master casts
e) Two tray or sectional custom impression tray
f) Location of posterior limit and jaw relation records
g) Setting of the posterior denture teeth / verifying jaw relations and the patient try in.

19 Laboratory phase

a) Setting of anterior teeth
b) Wax contouring
c) Flasking and boil out
d) Processing and finishing

20 Surgical templates

a) Surgery and immediate denture insertion
b) Post operative care and patient instructions, subsequent service for the patient on the immediate denture.

21 Over dentures (tooth supported complete dentures)

a) Indications and treatment planning
b) Advantages and disadvantages
c) Selection of abutment teeth
d) Loss of abutment teeth
e) Tooth supported complete dentures
f) Non-coping abutments
g) Abutment with copings
h) Abutments with attachments
i) Submerged vital roots
j) Preparations of the retainedteeth.

22 Single Dentures:

a) Single Mandibular denture to oppose natural maxillary teeth,
b) Single complete maxillary denture to oppose natural Mandibular teeth to oppose a partially edentulous Mandibular arch with fixed prosthesis
c) Partially edentulous Mandibular arch with removable partial dentures
d) Opposing existing complete dentures
e) Preservation of the residual alveolar ridge, necessity for retaining maxillary teeth and preventing mentaltrauma.

23 Pre prosthetic surgery

24 Non surgical methods

i. Rest for the denture supporting tissues

ii. Occlusal correction of the old prosthesis

iii. Good nutrition

iv. Conditioning of the patientsmusculature

A **Surgical methods** –

- Correction of conditions, that preclude optimal prosthetic function

  i. Hyperplastic ridge

  ii. Epulis fissuratum

  iii. Papillomatosis

  iv. Frenular attachments

  v. Pendulous maxillary tuberosities

  vi. Ridge augmentation

  vii. Maxillary and mandibular oral implants

  viii. Corrections of congenital deformities

  ix. Discrepancies in jaw size

  x. Relief of pressure on the mental foramen

  xi. Enlargement of denture bearing areas

  xii. Vestibuloplasty

  xiii. Ridge augmentation

  xiv. Replacement of tooth roots with Osseo integrated dentureimplants.

- **Implant supported Prosthesis for partially edentulous patients** –Science of Osseo integration, clinical protocol ***(diagnostic,surgical and prosthetic***) for treatment with implant supported over dentures, managing problems and complications. Implant Prosthodontics for edentulous patients: current and future directions.

  Implant supported prosthesis for partially edentulous patients – Clinical and laboratory protocol: Implant supported prosthesis, managing problems and complications

  i. Introduction and Historical Review

  ii. Biological, clinical and surgical aspects of oral implants o Diagnosis and treatment planning

  iii. Radiological interpretation for selection of fixtures

  iv. Splints for guidance fort surgical placement of fixtures.

v. Surgical andIntra oral plastic surgery, if any Guided bone and Tissue regeneration consideration for implants fixture.

vi. Implant supported prosthesis for complete edentulism and partial edentulism o Occlusion for implant supported prosthesis.

vii. Peri-implant tissue and Management of peri-implantitis

viii. Maintenance and after care.

ix. Management of failed restoration.

x. Work authorization for implant supported prosthesis – definitive instructions, legal aspects, delineation of responsibility.

25 **Art of communication in the management of the edentulous predicament**

i. Communication–scope

ii. A model of communication, why communication is important? What are the elements of effective communication? Special significance of doctor / patient communication

iii. Doctor behavior

iv. The iatro sedative (doctor & act of making calm) recognizing and acknowledging the problem

v. Exploring and identifying the problem

vi. Interpreting and explaining the problem

vii. Offering a solution to the problem for mobilizing their resources to operate in a most efficient way

viii. Recognizing and acknowledging the problem

ix. Interpreting and explaining the problem

x. Offering a solution to the problem.

26 Materials prescribed in the management of edentulous patients –

i. Denture base materials

ii. General requirements of biomaterials for edentulous patients

iii. Requirement of an ideal denture base

iv. Chemical composition of denture base resins

v. Materials used in the fabrication of prosthetic denture teeth

vi. Requirement of prosthetic denture teeth

vii. Denture lining materials and tissue conditioners

viii. Cast metal alloys as denture bases – base metal alloys.

27 **Articulators – Evolution of concepts**

i. Classification

ii. Selection

iii. Limitations

iv. Precision

v. Accuracy and sensitivity

vi. Functions of the articulator and their uses

vii. Recent advancements including virtual articulator

28 **Fabrication of complete dentures**

i. Complete denture impressions–muscles of facial expressions and anatomical landmarks, support, retention, stability, aims and objectives of preservation, support, stability, aesthetics, and retention.

ii. Impression materials and techniques – need of 2 impressions the preliminary impression and final impressions. Preliminary and final impressions, impression making, custom tray and refining the custom tray, preparing the tray to secure the final impression, making the final impression, boxing impression and making the casts

iii. Developing an analogue / substitute for the maxillary denture bearing area – anatomy of supporting structures – mucous membrane, hard palate, residual ridge, shape of the supporting structure and factors that influence the form and size of the supporting bones, incisive foramen, maxillary tuberosity, sharp spiny process, torus palatinus,

iv. Anatomy of peripheral or limiting structures, labial vestibule, Buccal vestibule, vibrating lines.

v. Developing an analogue / substitute for the Mandibular denture bearing area- anatomy of supporting structure, crest of the residual ridge, buccal shelf, shape of

Supporting structure, mylohyoid ridge, mental foramen, genial tubercles, torus mandibularis, Anatomy of peripheral or limiting structure – labial vestibule, Buccal vestibule, lingual border, mylohyoid muscle, retromylohyoid fossa, sublingual gland region, alveolingual sulcus, Mandibular impressions – preliminary impressions, custom tray, refining, preparing the tray\, final impressions.

29 **Mandibular movements, Maxillo mandibular relations and concepts of occlusion –**

i. Gnathology,

ii. Identification of shape and location of arch form–Mandibular and maxillary occlusion rims, level of occlusal plane and recording of trail denture base, tests to determine vertical dimension of occlusion, interocclusal & centric relation records.

iii. Biological and clinical considerations in making jaw relation records and transferring records from the patients to the articulator

iv. Recording of Mandibular movements – influence of opposing tooth contacts, temporomandibular joint, muscular involvements, neuromuscular

regulation of Mandibular motion, the envelope of motion, rest position.

v. Maxillo – Mandibular relations – the centric, eccentric, physiologic rest position, vertical dimension, occlusion,

vi. Recording methods – mechanical, physiological,

vii. Determining the horizontal jaw relation – Functional graphics, tactile or interocclusal check record method, Orientation / sagittal relation records, Arbitrary / Hinge axis and face bow record, significance and requirement, principles and biological considerations and securing on articulators.

30 **Selecting and arranging artificial teeth and occlusion for the edentulous patient –**

i. Anterior tooth selection, posterior tooth selection, and principles in arrangement of teeth, and factors governing the position of teeth – horizontal & vertical relations.

ii. The inclinations and arrangement of teeth for aesthetics, phonetics and mechanics – to concept of occlusion.

31 **The Try in** –

i. Verifying vertical dimension

ii. Centric relation

iii. Establishment ofposterior palatal seal

iv. Creating a facial and functional harmony with anterior teeth

v. Harmony of spaces of individual teeth position

vi. Harmony with sex

vii. Personality and age of the patient

viii. Co-relating aesthetics and incisal guidance.

32 **Speech considerations with complete dentures & speech production** –

i. Structural and functional demands,

ii. Neuropsychological background,

iii. Speech production and the roll of teeth and other oral structures

– Bilabial soundslabiodental(s) sounds

– Linguodental sounds

– Linguoalveolarsound

– Articulatoriccharacteristics

– Acoustic characteristics

– Auditory characteristics

– Linguopalatal and linguoalveolar sounds

– Speech analysis and prosthetic considerations.

33 **Waxing contouring and processing the dentures their fit and insertion and after care** –

i. Laboratory procedure–

- Wax contouring
- Flasking andprocessing
- Laboratory remount procedures
- Selective grinding
- Finishing and polishing.

ii. Critiquing the finished prosthesis –

- Doctors evaluation
- Patients evaluation
- Friends evaluation
- Elimination of basal surface errors
- Errors in occlusion
- Interocclusal records for remounting procedures – verifying centric relation, eliminating occlusal errors.

iii. Special instructions to the patient – appearance with new denture, mastication with new dentures, speaking with new dentures, oral hygiene with dentures, preservation of residual ridges and educational material for patients, maintaining the comfort and health of the oral cavity in the rehabilitated edentulous patients. Twenty-four hours oral examination and treatment and (preventive) Prosthodontic

– periodontic recall for oral examination 3 to 4 months intervals and yearly intervals.

B **Prosthodontic treatment for partially edentulous patients – Removable partial Prosthodontics**

Scope, definition and terminology

- Classification of partially edentulous arches - requirementsofanacceptablemethodofclassification,
- Kennedy'sclassification
- Applegate's rules for applying the Kennedy classification

Components of RPD–

i) **Major connector**–mandibular andmaxillary

ii) **Minor connectors**- design

- Functions & form and location of major and minor connectors
- Tissue stops
- Finishing lines
- Reaction of tissue to metalliccoverage

iii) **Rest and rest seats** – form of the Occlusal rest and rest seat,

- Interproximal Occlusal rest seats

- Internal Occlusal rests
- Possible movements of partial dentures
- Support for rests
- Lingual rests on canines and incisor teeth
- Incisal rest and restseat.

iv) **Direct retainers**- Internal attachments &extracoronal direct retainers.

- Relative uniformity of retention
- Flexibility of clasp arms
- Stabilizing reciprocal clasp
- Criteria for selecting a given clasp design
- The basic principles of clasp design
- Circumferential clasp, bar clasp, combination clasp and other type ofretainers.

v) **Indirect Retainers** – denture rotation about an axis,

- Factors influencing effectiveness of indirect retainers
- Forms of indirect retainers
- Auxiliary Occlusal rest
- Canine extensions from Occlusal rests, canine rests
- Continuous bar retainers and linguoplates
- Modification areas, rugae support, direct – indirectretention

vi) Teeth and denture bases – types,

- Materials,
- Advantages and dis-advantages,
- Indications and contraindications and clinical use.

vii) **Principles of removable partial Denture design** –

- Bio mechanical considerations,
- The factors influencing after mouth preparations
- Occlusal relationship of remaining teeth
- Orientation of Occlusal plane
- Available space for restoration
- Arch integrity
- Tooth morphology
- Response of oral structure to previous stress
- Periodontal conditions
- Abutment support
- Tooth supported and tooth and tissue supported,

- Need for indirect retention
- Clasp design
- Need for rebasing
- Secondary impression
- Need for abutment tooth modification
- Type of major connector
- Type of teeth selection
- Patients past experience
- Method of replacing single teeth or missing anterior teeth.
- Difference between tooth supported and tissue supported partial dentures, essentials of partial denture design
- Components of partial denture design,
- Tooth support
- Tissue support
- Stabilizing components
- Guiding planes
- Use of splint bar for denture support
- Internal clip attachments
- Overlay abutment as support for a denture base
- Use of a component partially to gain support.

a. Education of patient

b. Diagnosis and treatmentplanning

c. Design, treatment sequencing and mouthpreparation

d. **Surveying** –

- Description of dental surveyor
- Purposes of surveying
- Aims and objectives in surveying of diagnostic cast and master cast
- Final path of insertion
- Factors that determine path of insertion and removal
- Recording relationofcasttosurveyor
- Measuringamountofretentivearea
- Blockingof master cast – paralleled blockout, shaped blockout, arbitrary blockout and relief.

e. Diagnosis and treatment planning –

- Infection control and cross infection barriers –
- Clinical and laboratory and hospital waste management
- Objectives of prosthodontic treatment

- Records
- Systemic evaluation
- Oral examination, preparation of diagnostic cast
- Interpretation of examination data
- Radiographic interpretation
- Periodontal considerations
- Caries activity
- Prospective surgical preparation
- Endodontic treatment
- Analysis of occlusal factors
- Fixed restorations
- Orthodontic treatment
- Need for determining the design of components
- Impression procedures and occlusion
- Need for reshaping remaining teeth
- Reduction of unfavorable tooth contours
- Differential diagnosis: fixed or removable partial dentures
- Choice between complete denture and removable partial dentures, choice ofmaterials

f. Preparation of Mouth for removable partial dentures –Oral surgical preparation

- Conditioning of abused and irritated tissues
- Periodontal preparation – objectives of periodontal therapy
- Periodontal diagnosis
- Control therapy
- Periodontalsurgery.

g. Preparation of Abutment teeth –Classification of abutment teeth

- Sequence of abutment preparations on sound enamel or existing restorations
- Conservative restorations using crowns
- Splinting abutment teeth
- Utilization
- Temporary crowns to be used asabutment.

h. Impression Materials and Procedures for Removable Partial Dentures –

- Rigid materials
- Thermoplastic materials

- Elastic materials
- Impressions of the partially edentulous arch
- Tooth supported; tooth tissue supported
- Individual impressiontrays

i. Support for the Distal Extension Denture Base –Distal extension

- Removable partial denture
- Factors influencing the support of distal extension base
- Methods of obtaining functional support for the distal extensionbase.

j. Laboratory Procedures –Duplicating a stone cast

- Waxing the partial denture framework
- Anatomic replica patterns
- Spruing
- Investing
- Burnout
- Casting and finishing of the partial denture framework
- Making record bases
- Occlusion rims
- Making a stone occlusal template from a functional occlusal record
- Arranging posterior teeth to an opposing cast or template
- Arrangement of anterior teeth
- Waxing and investing the partial denture before processing acrylic resin bases
- Processing the denture
- Remounting and occlusal correction to an occlusal template
- Polishing thedenture.

k. Initial placement, adjustment and servicing of the removable partial denture

- Adjustments to bearing surfaces of denture framework
- Adjustment of occlusion in harmony with natural and artificial dentition
- Instructions to the patient
- Follow – up services

l. Relining and Rebasing the removable partial denture **–Relining tooth supported dentures bases**

- Relining distal extension denture bases
- Methods of reestablishing occlusion on a relined partialdenture.

m. **Repairs and additions to removable partial dentures** –Broken clasp arms

- Fractured occlusal rests

- Distortion or breakage of other components – major and minor connectors
- Loss of a tooth or teeth not involved in the support or retention of the restoration
- Loss of an abutment tooth necessitating its replacement and making a new direct retainer
- Other types of repairs & repair bysoldering.

n. Removable partial denture considerations in maxillofacial prosthetics

- Maxillofacial prosthetics
- Intra oral prosthesis
- Designconsiderations
- Maxillary prosthesis
- Obturators
- Speech aids
- Palatal lifts
- Palatal augmentations
- Mandibular prosthesis
- Treatment planning
- Framework design
- Class I resection
- Class II resection
- Mandibular flange prosthesis
- Jaw relation records.

o. **Management of failed restorations and work authorization details.**

C **FIXED PROSTHODONTICS**

a) Scope,

b) Definitions and terminology,

c) Classification and principles,

d) Design,

e) Mechanical and biological considerations of components –

i. Retainers

ii. Connectors

iii. Pontics

iv. Work authorization

f)Diagnosis and treatment planning

Patients history and interview

Patients desires and expectations and needs

Systemic and emotional health

g)Clinical examinations –

i. Head and neck, oral – teeth

ii. Occlusal and periodontal

iii. Preparation of diagnostic cast

iv. Radiographic interpretation

v. Aesthetics

vi. Endodontics considerations

vii. Abutment selection – bone support, root proximities and inclinations, selection of abutments for cantilever,pier

h) Management of Carious teeth –

i. Caries in aged population

ii. Caries control, removal caries

iii. Protection of pulp

iv. Reconstruction measure for compromised teeth –

v. Retentive pins,

vi. Horizontal slots,

vii. Retentive grooves,

viii. Prevention of caries,

ix. Diet,

x. Prevention of root caries and vaccine forcaries

i) Periodontal considerations –

Attachment units,

Ligaments,

Prevention ofgingivitis,

Periodontitis.

Microbiological aspect of periodontal diseases,

Marginal lesion,

Occlusal trauma,

Periodontal pockets in attached gingiva,

Interdental papilla, gingival embrasures,

Gingival/periodontal prosthesis,

Radiographic interpretations of periodontia,

Intraoral, periodontal splinting –

i. Fixed Prosthodontics with periodontially compromised dentitions,

ii. Placement of marginrestorations

j) Biomechanical principles of tooth preparation –

Individual tooth preparations –

Complete metal Crowns – P.F.C.,

All porcelain –

i. Cerestore crowns,
ii. Dicor crowns,
iii. Incera**a**m etc.
iv. Porcelain jacket crowns;
v. Partial 3/4, 7/8,
vi. Telescopic, pin– ledge, laminates, inlays, onlays.
vii. Preparations for restoration of teeth–
Amalgam,
Glass Ionomer and composite resins.
Resin bond retainers,
viii. Gingival marginal preparations –
Design,
Material selection,
ix. Biological and mechanical considerations –
x. Intra coronal retainer and precision attachments
xi. Custom made andprefabricated

k) Isolation and fluid control –

i. Rubber dam application(s),
ii. Tissue dilation–soft tissue management for cast restoration,
iii. Impression materials and techniques,
iv. Provisional restorations,
v. Interocclusal records,
vi. Laboratory support for fixed Prosthodontics,
vii. Occlusion,
viii. Occlusal equilibration, articulators,
ix. Recording and transferring of occlusal relations,
x. Cementing ofrestorations

l) Resins, Gold and gold alloys, glass Ionomer,restorations.

m) Restoration of endodontically treated teeth,

Stomatognathic Dysfunction and management

n) Management of failedrestorations

o) Osseo integrated/ supported fixed Prosthodontics –
Osseo integrated/ supported and tooth supported fixed Prosthodontics

p) CAD – CAM Prosthodontics

D **MAXILLOFACIAL REHABILITATION**:

- Scope
- Terminology
- Definitions
- Cross infection
- Control and hospital waste management
- Work authorization
- Behavioral and psychological issues in Head and neck cancer
- Psychodynamic interactions between clinician and patient.

I. **Cancer Chemotherapy:** Oral Manifestations

- Complications
- Management

II. **Radiation therapy of head and neck tumors:** Oral effects

- Dental manifestations and dental treatment: Etiology, treatment and rehabilitation (restoration).
- Acquired defects of the mandible
- Acquired defects of hard palate, soft palate
- Clinical management of edentulous and partially edentulous maxillectomy patients
- Facial defects
- Restoration of speech
- Velopharyngeal function
- Cleft lip and palate
- Cranial implants
- Maxillofacial trauma
- Lip and cheek support prosthesis
- Laryngectomy aids
- Obstructive sleep apnoea
- Tongue prosthesis
- Oesophageal prosthesis
- Radiation carriers
- Burn stents
- Nasal stents
- Vaginal and anal stents
- Auditory inserts
- Trismus appliances

- Mouth controlled devices for assisting the handicapped
- Custom prosthesis
- Conformers, and orbital prosthesis for ocular and orbital defects.
- Osseo integrated supported facial and maxillofacial prosthesis.
- Resin bonding for maxillofacial prosthesis,
- Cranial prosthesis Implant rehabilitation of the mandible compromise by radiotherapy,
- Prosthodontic treatment,
- Material and laboratory procedures for maxillofacial prosthesis.

E **OCCLUSION**

EVALUATION, DIAGNOSIS AND TREATMENT OF OCCLUSAL PROBLEMS:

- Scope, definition, terminology, optimum oral health, anatomic harmony, functional harmo occlusal stability, causes of deterioration of dental and oral health.
- Anatomical, physiological, neuro – muscular, psychological considerations of teeth
- Muscles of mastication
- Temporomandibular joint
- Intra oral and extra oral and facial musculatures and the functions of Cranio mandib system.
- Occlusal therapy
- The stomatognathic system
- Centric relation, vertical dimension
- The neutral zone
- The occlusal plane
- Differential diagnosis of temporomandibular disorders
- Understanding and diagnosing intra articular problems
- Relating treatment to diagnosis of internal derangements of TMJ
- Occlusal splints.
- Selecting instruments for occlusal diagnosis and treatment, mounting casts
- Pankey-Mann-Schuyler philosophy of complete occlusal rehabilitation
- Long centric
- Anterior guidance
- Restoring lower anterior teeth
- Restoring upper anterior teeth
- Determining the type of posterior occlusal contours
- Methods for determining the plane of occlusion
- Restoring lower posterior teeth
- Restoring upper posterior teeth

- Functionally generated path techniques for recording border movements intra orally
- Occlusal equilibration.
- Bruxism
- Procedural steps in restoring occlusion
- Requirements for occlusal stability
- Solving occlusal problems through programmed treatment planning
- Splinting
- Solving– occlusal wear problems
- Deep overbite problems
- Anterior overjet problems
- Anterior open bite problems
- Treating – end to end occlusion
- Spaced anterior teeth
- Cross bite problems
- Crowded, irregular, or interlocking anterior bite.
- Using Cephalometric for occlusal analysis, solving severe arch mal-relationship proble transcranial radiography, postoperative care of occlusal therapy.

F **ESTHETICS**

Scope, definitions

Morpho psychology and esthetics, structural esthetic rules –

Facial components

Dental components

Gingival components

Physical components.

Esthetics and its relationship tofunction –

Crown morphology

Physiology of occlusion, mastication, occlusal loading and clinical aspect in bio esthetic aspects

Physical and physiologic characteristic and muscular activities of facial muscle

Perioral anatomy and muscle retaining exercises

Smile –

Classification and smile components

Smile design

Esthetic restoration of smile

Esthetic management of the dentogingival unit

Intraoral materials for management of gingival contours, and ridge contours.

Periodontal esthetics

Restorations –

Tooth colored restorative materials

The clinical and laboratory aspects

Marginal fit

Anatomy

Inclinations, form, size, shape, color, embrasures & contact point.

- Infection control, cross infection barrier – clinical &lab ; hospital & lab waste management

TMJ – Temporomandibular joint dysfunction

Scope

Definitions

Terminology

a) Temporomandibular joint and its function,
b) Orofacial pain,
c) Pin from the temporomandibular joint region,
d) Temporomandibular joint dysfunction,
e) Temporomandibular joint sounds,
f) Temporomandibular joint disorders,
g) Anatomy related,
h) Trauma, disc displacement,
i) Osteoarthrosis/Osteoarthritis,
j) Hyper mobility and dislocation,
k) Infectious arthritis,
l) Inflammatory diseases,
m) Eagle's syndrome (Styloid – stylohyoid syndrome),
n) Synovial chondromatosis,
o) Osteochondrosis disease,
p) Ostonecrosis,
q) Nerve entrapment process,
r) Growth changes,
s) Tumors
t) Radiographic imaging

u) Etiology, diagnosis and cranio mandibular pain,

v) Differential diagnosis and managementoforofacialpain–

i. Painfromteeth,pulp,

ii. Dentin,musclepain,

iii. TMJpain
Psychologic,
Physiologic –

- Endogenous control
- Acupuncture analgesia
- Placebo effects on analgesia
- Trigeminal neuralgia
- Temporal arteritis

Occlusal splint therapy

i. Construction and fitting of occlusal splints

ii. Management of occlusal splints,

iii. Therapeutic effects of occlusal splints

iv. Occlusal splints and general muscles performance

v. TMJ joint uploading and anterior repositioning appliances

vi. Use and care of occlusalsplints

Occlusal adjustment procedures –

Reversible

i. Occlusal stabilization splints and physical therapies

ii. Jaw exercises

iii. Jaw manipulation and other physiotherapy

Irreversible therapy

i. Occlusal repositioning appliances, orthodontictreatment

ii. Orthognathic surgery

iii. Fixed and removable prosthodontic treatment and occlusal adjustment

iv. Removable prosthodontic treatment and occlusal adjustment.

v. Indication for occlusal adjustment, special nature of orofacial pain

vi. Psychopathological considerations, occlusal adjustment philosophies

vii. Mandibular position, excursive guidance

viii. Occlusal contact scheme

ix. Goals of occlusal adjustment

x. Significance of a slide in centric

xi. Preclinical procedures

xii. Clinical procedures for occlusaladjustment

Scheme of Examination

A **Theory**

Part – I	Basic sciences paper	100 Marks
Part – II	Paper –I Paper-II, aper-III	300 Marks (100 Marks for each paper)

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of ***MDS course. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I , Paper-II and Paper III shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Distribution of topics for each paper will be as follows:***

Part-I : ***Applied Basic Sciences: Applied Anatomy***

Nutrition & Biochemistry, Pathology & Microbiology, virology, Applied

Dental anatomy & histology, Oral pathology & oral Microbiology, Adult

and geriatric psychology, Applied dental materials

Part-II :

*Part-I :****Removable Prosthodontics and Implant supported prosthesis (Implantology), Geriatric dentistry and Cranio facial Prosthodontics***

Part-II : ***Fixed Prosthodontics, Occlusion, TMJ and esthetics.***

Paper-II Paper-III : Essays (descriptive and analyzing type questions)

**The topics assigned to the different papers are generally evaluated under those sections.However a strict division of the subject may not be possible and some overlapping of topics is inevitable. Students should be prepared to answer overlapping topics.*

B **Practical 300 Marks**

1)	Practical/ Clinical Examination-	200 Marks
2)	Viva voce	100 Marks

1) Practical/ Clinical Examination (200 Marks)

i) Presentation of treated patients and records during their 3years Training period(35 Marks)

a. C.D.	1 mark
b. R. P.D.	2 marks
c. F.P.D. including single tooth and surface restoration	
d. I.S.P.	5 marks
e. Occlusal rehabilitation	5 marks
f. T.M.J	5 marks
g. Maxillofacial Prosthesis	5 marks
h. Pre-Clinical Exercises	10 marks

ii) Presentation of Clinical Exam CD patient's prosthesis including insertion (75 Marks)

1	Discussion on treatment plan and patient review	10 marks
2	Tentative jaw relation records	5 marks
3	Face Bow – transfer	5 marks

4	Transferring it on articulators	5 marks
5	Extra oral tracing andsecuring centricand protrusive/lateral, record	15 marks
6	Transferring records on articulator and programming.	5 marks
7	Selection of teeth	5 marks
8	Arrangement of teeth	10 marks
9	Waxed up denture trial	10 marks
10	Check of Fit, insertion and instruction of previously	5 marks
	processed characterized, anatomic complete denture	
	Prosthesis	

ALL STEPS WILL INCLUDE CHAIRSIDE, LAB AND VIVA VOCE

iii) Fixed Partial Denture (35 Marks)

a. Case discussion including treatment planning and selection of Patient for FPD 5 Marks
b. Abutment preparation, isolation and fluid control. 15 Marks
c. Gingival retraction and impressions (Conventional/CAD CAM impressions)10 Marks
d. Cementation of provisional restoration. 5 Marks

iv) Removable Partial Denture (25 Marks)

a. Sueveying and designing of partially dentate cast. 15 Marks
b. Discussion on components and material selection including 10 Marks occlusal schemes.

v) Implant supported Prosthesis (2nd Stage protocol) (30 Marks)

a. Case discussion including treatment planning and selection of Patient for ISP. 10 Marks
b. Stage II Preparation, Abutment selection, placement and evaluation.10 Marks
c. Implant impression and making of cast. 10 Marks

2) ***Viva voce : (100 Marks)***

i) Viva voce Examination: (80 Marks)

All examiners will conduct viva-voce conjointly on candidate's comprehension, analytical approach, expressions, interpretation of data and communication skills. It includes all components of course contents. It includes presentation and discussion on dissertation also.

ii) Pedagogy (20 Marks)