

SYLLABUS FOR Ph.D. ENTRANCE EXAMINATION

PROSTHODONTICS AND CROWN & BRIDGE

Applied anatomy of Head and Neck:

General Human Anatomy - Gross Anatomy, anatomy of Head & Neck in detail. Cranial and facial bones, TMJ and function, muscles of mastication and facial expression, muscles of neck and chain of back muscles including muscles of deglutition and tongue, arterial supply and venous drainage of the head and neck, anatomy of the Para nasal sinuses with relation to the Vth cranial nerve. General consideration of the structure and function of the brain, considerations of V, VII, XI, XII, cranial nerves and autonomic nervous system of the head and neck. The salivary glands, Pharynx, Larynx Trachea, Esophagus, Functional Anatomy mastication, Deglutition, speech, respiration, and circulation, teeth eruption, morphology, eruption and function. Anatomy of TMJ, its movements and myofascial pain dysfunction syndrome.

Embryology- Development of the face, tongue, jaws, TMJ, Paranasal sinuses, pharynx, larynx, trachea, esophagus, Salivary glands, Development of oral and Para oral tissue including detailed aspects of tooth and dental hard tissue formation

Growth & Development - Facial form and Facial growth and development overview of Dentofacial growth process and physiology from fetal period to maturity and old age, comprehensive study of craniofacial biology. General physical growth, functional and anatomical aspects of the head, changes in craniofacial skeletal, relationship between development of the dentition and facial growth.

Dental Anatomy - Anatomy of primary and secondary dentition, concept of occlusion, mechanism of articulation, and masticatory function. Detailed structural and functional study of the oral dental and Para oral tissues. Normal occlusion, development of occlusion in deciduous mixed and permanent dentitions, root length, root configuration, tooth-numbering system.

Histology - histology of enamel, dentin, Cementum, periodontal ligament and alveolar bone, pulpal anatomy, histology and biological consideration. Salivary glands and Histology of epithelial tissues including glands.

Histology of general and specific connective tissue including bone, hematopoietic system, lymphoid etc. Muscle and neural tissues Endocrinal system including thyroid Salivary glands
Histology of skin, oral mucosa, respiratory mucosa, connective tissue, bone, cartilage, cellular elements of blood vessels, blood, lymphatic, nerves, muscles, tongue, tooth and its surrounding structures.

Anthropology & Evolution - Comparative study of tooth, joints, jaws, muscles of mastication and facial expression, tongue, palate, facial profile and facial skeletal system. Comparative anatomy of skull, bone, brain, musculo - skeletal system, neuromuscular coordination, posture and gait - plantigrade and orthograde posture.

Applied Genetics and Heredity - Principles of orofacial genetics, molecular basis of genetics, genetic risks, counseling, bioethics and relationship to Orthodontic management. Dentofacial anomalies, Anatomical, psychological and pathological characteristics of major groups of developmental defects of the orofacial structures.

Cell biology - Detailed study of the structure and function of the mammalian cell with special emphasis on ultra structural features and molecular aspects. Detailed consideration of Intercellular junctions. Cell cycle and division, cell-to-cell and cell- extra cellular matrix interactions.

Applied Physiology and Nutrition - Introduction, Mastication, deglutition, digestion and assimilation, Homeostasis, fluid and electrolyte balance. Blood composition, volume, function, blood groups and hemorrhage, Blood transfusion, circulation, Heart, Pulse, Blood pressure, capillary and lymphatic circulation, shock, respiration, control, anoxia, hypoxia, asphyxia, artificial respiration. Endocrine glands in particular reference to pituitary, parathyroid and thyroid glands and sex hormones. Role of calcium and Vit D in growth and development of teeth, bone and jaws. Role of Vit. A, C and B complex in oral mucosal and periodontal health. Physiology and function of the masticatory system. Speech mechanism, mastication, swallowing and deglutition mechanism, salivary glands and Saliva.

Endocrines- General principles of endocrine activity and disorders relating to pituitary, thyroid, pancreas, parathyroid, adrenals, gonads, including pregnancy and lactation. Physiology of saliva, urine formation, normal and abnormal constituents, Physiology of pain, Sympathetic and parasympathetic nervous system. Neuromuscular co-ordination of the stomatognathic system. Applied Pharmacology and Therapeutics- Definition of terminologies used - Dosage and mode of administration of drugs. Action and fate of drugs in the body, Drug addiction, tolerance and hypersensitive reactions, Drugs acting on the central nervous system, general anesthetics hypnotics. Analeptics and tranquilizers, Local anesthetics, Chemotherapeutics and antibiotics, Antitubercular and anti syphilitic drugs, Analgesics and antipyretics, Antiseptics, styptics, Sialogogues and antisialogogues, Haematinics, Cortisone, ACTH, insulin and other antidiabetics vitamins: A, D, B - complex group C and K etc. Chemotherapy and Radiotherapy

Applied Pathology - Inflammation, repair and degeneration, Necrosis and gangrene, Circulatory disturbances, Ischemia, hyperemia, chronic venous congestion, edema, thrombosis, embolism and infarction. Infection and infective granulomas, Allergy and hypersensitive reaction, Neoplasm; Classification of tumors, Carcinogenesis, characteristics of benign and malignant tumors, spread of tumors. Applied histo pathology and clinical pathology.

Applied Microbiology- Immunity, knowledge of organisms commonly associated with diseases of the oral cavity (morphology cultural characteristics etc) of strepto, staphylo, pneumo, gono and meningococci, Clostridia group of organisms, Spirochetes, organisms of tuberculosis, leprosy, diphtheria, actinomycosis and moniliasis etc. Virology, Cross infection control, sterilization and hospital waste management

a) Applied Oral Pathology -Developmental disturbances of oral and Para oral structures, Regressive changes of teeth, Bacterial, viral and mycotic infections of oral cavity, Dental caries, diseases of pulp and periapical tissues, Physical and chemical injuries of the oral cavity, oral manifestations of metabolic and endocrine disturbances, Diseases of the blood and blood forming organism in relation to the oral cavity, Periodontal diseases, Diseases of the skin, nerves and muscles in relation to the Oral cavity.

b) Laboratory determinations- Blood groups, blood matching, R.B.C. and W.B.C. count, Bleeding and clotting time, Smears and cultures - urine analysis and culture

BioStatistics- Study of Biostatistics as applied to dentistry and research. Definition, aim characteristics and limitations of statistics, planning of statistical experiments, sampling, collection, classification and presentation of data (Tables, graphs, pictograms etc) Analysis of data

Introduction to biostatistics- Scope and need for statistical application to biological data. Definition of selected terms - scale of measurements related to statistics, Methods of collecting data, presentation of the statistical diagrams and graphs.

Frequency curves, mean, mode of median, Standard deviation and co-efficient of variation, Correlation - Co-efficient and its significance, Binominal distributions normal distribution and Poisson distribution, Tests of significance

Research methodology - Understanding and evaluating dental research, scientific method and the behavior of scientists, understanding to logic - inductive logic - analogy, models, authority, hypothesis and causation, Quacks, Cranks, Abuses of Logic, Measurement and Errors of measurement, presentation of results, Reliability, Sensitivity and specificity diagnosis test and measurement, Research Strategies, Observation, Correlation, Experimentation and Experimental design. Logic of statistical interference balance judgements, judgement under uncertainty, clinical vs., scientific judgement, problem with clinical judgement, forming scientific judgements, the problem of contradictory evidence, citation analysis as a Means of literature evaluation, influencing judgement: Lower forms of Rhetorical life, Denigration, Terminal, Inexactitude.

Applied Radiology- Introduction, radiation, background of radiation, sources, radiation biology, somatic damage, genetic damage, protection from primary and secondary radiation, Principles of Xray production, Applied principles of radio therapy and after care.

Roentgenographs Techniques- Intra oral: Extra oral roentgenography, Methods of localization digital radiology and ultra sound, Normal anatomical landmarks of teeth and jaws in radiograms, temporomandibular joint radiograms, neck radiograms.

Applied medicine-Systemic diseases and its influence on general health and oral and&fenta! health. Medical emergencies in the dental offices - Prevention, preparation, medico legal consideration, unconsciousness, respiratory distress, altered consciousness, seizures, drug related emergencies, chest pain, cardiac arrest, premedication, and management of ambulatory patients, resuscitation, applied psychiatry, child, adult and senior citizens. Assessment of case, premaliation, inhibition, monitoring, extubalin, complication assist in O.T. for anesthesia.

Applied surgery & Anesthesia-General principles of surgery, wound healing, incision wound care, hospital care, control of hemorrhage, electrolyte balance. Common bandages, sutures, splints, shifting of critically ill patients, prophylactic therapy, bone surgeries, grafts, etc, surgical techniques, nursing assistance, anesthetic assistance.Principles in speech therapy, surgical and radiological craniofacial oncology, applied surgical ENT and ophthalmology.

Plastic surgery - Applied understanding and assistance in programmes of plastic surgery for prosthodontics therapy.

Applied Dental Material:

- All materials used for treatment of craniofacial disorders - Clinical, treatment, and laboratory materials, Associated materials, Technical consideration, shelf life, storage, manipulations, sterilization, and waste management.
- Students shall be trained and practiced for all clinical procedures with an advanced knowledge of theory of principles, concepts and techniques of various honorably accepted methods and materials for Prosthodontics, treatment modalities includes honorable accepted methods of

diagnosis, treatment plan, records maintenance, and treatment and laboratory procedures and after care and preventive.

- Understanding all applied aspects for achieving physical, psychological well being of the patients for control of diseases and / or treatment related syndromes with the patient satisfaction and restoring function of Cranio mandibular system for a quality life of a patient
- The theoretical knowledge and clinical practice shall include principles involved for support, retention, stability, esthetics, phonation, mastication, occlusion, behavioral, psychological, preventive and social aspects of science of Prosthodontics including Crown & Bridge and Implantology
- Theoretical knowledge and clinical practice shall include knowledge for laboratory practice and material science. Students shall acquire knowledge and practice of history taking, systemic and oro and Craniofacial region and diagnosis and treatment plan and prognosis record maintaining. A comprehensive rehabilitation concept with pre prosthetic treatment plan including surgical Reevaluation and prosthodontic treatment plan, impressions, jaw relations, utility of face bow and articulators, selection and positioning of teeth for retention, stability, esthetics, phonation and psychological comfort. Fit and insertion and instruction for patients after care and preventive Prosthodontics, management of failed restorations.
- TMJ syndromes, occlusion rehabilitation and craniofacial esthetics. State of the art clinical methods and materials for implants supported extra oral and intra oral prosthesis.
- *Student shall acquire knowledge of testing biological, mechanical and other physical property of all material used for the clinical and laboratory procedures in prosthodontic therapy.*
- *Students shall acquire full knowledge and practice Equipments, instruments, materials, and laboratory procedures at a higher competence with accepted methods.*
- *All clinical practice shall involve personal and social obligation of cross infection control, sterilization and waste management.*

I. REMOVABLE PROSTHODONTICS AND IMPLANTS:

a. Prosthodontic treatment for completely edentulous patients - *Complete denture, immediate complete denture, single complete denture, tooth supported complete denture, Implant supported Prosthesis for completely edentulous*

b. Prosthodontic treatment for partially edentulous patients: - *Clasp-retained partial dentures, intra coronal and extra coronal precision attachments retained partial dentures, maxillofacial prosthesis.*

Prosthodontic treatment for edentulous patients: - *Complete Dentures and Implant supported Prosthesis for Edentulous in both the arches*

Complete Denture Prosthesis - *Definitions, terminology, G.P.T., Boucher's clinical dental terminology*

Scope of Prosthodontics - *the Cranio Mandibular system and its functions, the reasons for loss of teeth and methods of restorations,*

Infection control, cross infection barrier - *clinical and laboratory and hospital and lab waste management*

a) *Edentulous Predicament, Biomechanics of the edentulous state, Support mechanism for the natural dentition and complete dentures, Biological considerations, Functional and Para functional considerations, Esthetic, behavioral and adaptive responses, Temporomandibular joints changes.*

b) *Effects of aging of edentulous patients - aging population, distribution and edentulism in old age, 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 old age*

c) *Sequalae caused by wearing complete denture - the denture in the oral environment - Mucosal reactions, altered taste perception, burning mouth syndrome, gagging, residual ridge reduction, denture stomatitis, flabby ridge, denture irritation hyperplasia, traumatic Ulcers, Oral cancer in denture wearers, nutritional deficiencies, masticatory ability and performance, nutritional status and masticatory functions.*

d) *Temporomandibular disorders in edentulous patients - Epidemiology, etiology and management, Pharmacotherapy, Physical modalities, and Bio-behavioral modalities*

e) *Nutrition Care for the denture wearing patient - Impact of dental status of food intake, Gastrointestinal functions, nutritional needs and status of older adults, Calcium and bone health, vitamin and herbal supplementation, dietary counseling and risk factor for malnutrition in patients with dentures and when teeth are extracted.*

f) *Preparing patient for complete denture patients - Diagnosis and treatment planning for edentulous and partially edentulous patients - familiarity with patients, principles of perception, health questionnaires and identification data, problem identification, prognosis and treatment identification data, problem identification, prognosis and treatment planning - contributing history - patient's history, social information, medical status - systemic status with special reference to debilitating diseases, diseases of the joint, cardiovascular, disease of the skin, neurological disorders, oral malignancies, climacteric, use of drugs, mental health - mental attitude, psychological changes, adaptability, geriatric changes - physiologic, pathological, pathological and intra oral changes. Intra oral health - mucose membrane, alveolar ridges, palate and vestibular sulcus and dental health.*

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

Specific observations - existing dentures, soft tissue health, hard tissue health - teeth, bone.

Biomechanical considerations - jaw relations, border tissues, saliva, muscular development - muscle tones, neuromuscular co-ordination, tongue, cheek and lips.

Interpreting diagnostic findings and treatment planning

g) *Pre prosthetic surgery - Improving the patients denture bearing areas and " relations: - non surgical methods - rest for the denture supporting tissues, Om! correction of the old prosthesis, good nutrition, conditioning of the patients musculature, surgical methods - Correction of conditions, that preclude optimal prosthetic function - hyperplastic ridge - epulis fissuratum and papillomatosis, frenular attachments and pendulous maxillary tuberosities, ridge augmentation,*

maxillary and Mandibular oral implants, corrections of congenital deformities, discrepancies in jaw size, relief of pressure on the mental foramen, enlargement of denture bearing areas, vestibuloplasty, ridge augmentation, replacement of tooth roots with Osseo integrated denture implants.

h) Immediate Denture - Advantages, disadvantages, contra indication, diagnosis treatment plan and prognosis, Explanation to the patient, Oral examinations, examination of existing prosthesis, tooth modification, prognosis, referrals / adjunctive care, oral prophylaxis and other treatment needs.

First extraction / surgical visit, preliminary impressions and diagnostic casts, management of loose teeth, custom trays, final impressions and final casts two tray or sectional custom impression tray, location of posterior limit and jaw relation records, setting the denture teeth / verifying jaw relations and the patient try in, laboratory phase, setting of anterior teeth, Wax contouring, flasking and boil out, processing and finishing, surgical templates, surgery and immediate denture insertion, post operative care and patient instructions, subsequent service for the patient on the immediate denture, over denture tooth attachments, implants or implant attachments.

i) Over dentures (tooth supported complete dentures) - indications and treatment planning, advantages and disadvantages, selection of abutment teeth, lose of abutment teeth, tooth supported complete dentures. Non-coping abutments, abutment with copings, abutments with attachments, submerged vital roots, preparations of the retained teeth.

j) Single Dentures: Single Mandibular denture to oppose natural maxillary teeth, single complete maxillary denture to oppose natural Mandibular teeth to oppose a partially edentulous Mandibular arch with fixed prosthesis, partially edentulous Mandibular arch with removable partial dentures. Opposing existing complete dentures, preservation of the residual alveolar ridge, necessity for retaining maxillary teeth and mental trauma.

k) Art of communication in the management of the edentulous predicament -Communication - scope, a model of communication, why communication . important, what are the elements of effective communications, special significance of doctor / patient communication, doctor behavior, The iatrosedative (doctor & act of making calm) recognizing and acknowledging the problem, exploring and identifying the problem, interpreting and explaining the problem, offering a solution to the problem for mobilize their resources to operate most efficient way, recognizing and acknowledging the problem, interpreting and explaining the problem, offering a solution to the problem.

l) Materials prescribed in the management of edentulous patients - Denture base materials, General requirements of biomaterials for edentulous patients, requirement of an ideal denture base, chemical composition of denture base resins, materials used in the fabrication of prosthetic denture teeth, requirement of prosthetic denture teeth, denture lining materials and tissue conditioners, cast metal alloys as denture, bases - base metal alloys.

m) Articulators - Classification, selection, limitations, precision, accuracy and sensitivity, and Functional activities of the lower member of the articulator and uses,

n) Fabrications of complete dentures - complete denture impressions - muscles of facial expressions and anatomical landmarks, support, retention, stability, aims and objectives - preservation, support, stability, aesthetics, and retention. Impression materials and techniques - need of 2 impressions the preliminary impression and final impression.

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, Anatomy of peripheral or limiting structures, labial vestibule,

Buccal vestibule, vibrating line, 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

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

o) Mandibular movements, Maxillo mandibular relation and concepts of occlusion - Gnathology, identification of shape and location of arch form - Mandibular and maxillary, occlusion rim, level of occlusal plane and recording of trial denture base, tests to determine vertical dimension of occlusion, interocclusal, centric relation records, Biological and clinical considerations in making jaw relation records and transferring records from the patients to the articulator, Recording of Mandibular movements - influence of opposing tooth contacts, Temporomandibular joint, muscular involvements, neuromuscular regulation of Mandibular motion, the envelope of motion, rest position, Maxillo - Mandibular relations - the centric, eccentric, physiologic rest position, vertical dimension, occlusion, recording methods - mechanical, physiological, 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.

p) Selecting and arranging artificial teeth and occlusion for the edentulous patient -anterior tooth selection, posterior tooth selection, and principles in arrangement of teeth, and factors governing position of teeth - horizontal, vertical. The inclinations and arrangement of teeth for aesthetics, phonetics and mechanics -to concept of occlusion.

q) The Try in - verifying vertical dimension, centric relation, establishment of posterior palatal seal, creating a facial and functional harmony with anterior teeth, harmony of spaces of individual teeth position, harmony with sex, personality and age of the patient, co-relating aesthetics and incisal guidance.

r) Speech considerations with complete dentures - speech production - structural and functional demands, neuropsychological background, speech production and the roll of teeth and other oral structures - bilabial sounds, labiodentals sounds, linguodental sounds, linguoalveolar sound, articulatoric characteristics, acoustic characteristics, auditory characteristics, linguopalatal and linguoalveolar sounds, speech analysis and prosthetic considerations.

s) Waxing contouring and processing the dentures their fit and insertion and after care - laboratory procedure - wax contouring, flasking and processing, laboratory remount procedures and selective, finishing and polishing. 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, special instructions to the patient - appearance with new denture, mastication with new dentures, speaking with new dentures, speaking with new dentures, oral hygiene with dentures, preserving 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.

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

u) Implant supported prosthesis for partially edentulous patients - Clinical and laboratory protocol: Implant supported prosthesis, managing problems and implications.

- Introduction and Historical Review
- Biological, clinical and surgical aspects of oral implants
- Diagnosis and treatment planning
- Radiological interpretation for selection of fixtures
- Radiological interpretation for selection of fixtures
- Splints for guidance for surgical placement of fixtures
- Intra oral plastic surgery
- Guided bone and Tissue generation consideration for implants fixture. □ Implants supported prosthesis for complete edentulism and partial edentulism □ Occlusion for implants support prosthesis.
- Peri-implant tissue and Management
- Peri-implant and management □ Maintenance and after care
- Management of failed restoration.
- Work authorization for implant supported prosthesis - definitive instructions, legal aspects, delineation of responsibility.

Prosthodontic treatment for partially edentulous patients - Removable partial Prosthodontics -

a. Scope, definition and terminology, Classification of partially edentulous arches - requirements of an acceptable methods of classification, Kennedy's classification, Applegate's rules for applying the Kennedy classification.

b. Components of RPD - major connector - mandibular and maxillary, minor connectors, design, functions, form and location of major and minor connectors, tissue stops, finishing lines, reaction of tissue to metallic coverage

Rest and rest seats - from 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 rest seat.

Direct retainer- Internal attachment, extracoronal direct retainer, relative uniformity of retention, flexibility of clasp arms, stabilizing - reciprocal clasp are, criteria for selecting a given clasp design, the basic principles of clasp design, circumferential clasp, bar clasp, combination clasp and other type of retainers.

Indirect Retainer - 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 - indirect retention.

Principles of removable partial Denture design - bio mechanic considerations, and the factors Influence after mouth preparations - Occlusal relationship of remaining ^T1eeth, 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, essential of partial denture design, components of partial denture design, tooth support, ridge 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 partial to gain support. c. Education of patient

- d. Diagnosis and treatment planning
- e. Design, treatment sequencing and mouth preparation
- f. Surveying - Description of dental surveyor, purposes of surveyor procedure of survey, Aims and objectives in surveying of diagnostic cast and master cast, Final path of placement, factors that determine path of placement and removal, Recording relation of cast to surveyor, measuring retention, Blocking of master cast - paralleled blockout, shaped blockout, arbitrary blockout and relief.
- g. Diagnosis and treatment planning - Infection control and cross infection barriers -clinical and laboratory and hospital and lab 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 of materials
- h. 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, periodontal surgery.
- i. Preparation of Abutment teeth - Classification of abutment teeth, sequence of abutment preparations on sound enamel or existing restorations, conservative restoration using crowns, splinting abutment teeth, utilization, temporary crowns to be used as abutment.
- j. 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 impression trays.
- k. Support for the Distal Extension Denture Base - Distal extension removable partial denture, Factors influencing the support of distal extension base, Methods for obtaining functional support for the distal extension base.
- l. Laboratory Procedures - Duplicating a stone case, Waxing the partial denture frame work, 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, types of anterior teeth, waxing and investing tinW partial denture before processing acrylic resin bases, processing the denture, remounting and occlusal correction to an occlusal template, polishing the denture.
- m. 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

n. Relining and Rebasing the removable partial denture - Relining tooth supported dentures bases, relining distal extension denture bases, methods of reestablishing occlusion on a relined partial denture.

o. 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 by soldering.

p. Removable partial denture considerations in maxillofacial prosthetics - Maxillofacial prosthetics, intra oral prosthesis, design considerations, 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 record

q. Management of failed restorations, work authorization.