A. Medical Subjects :-
- Detailed Anatomy & Osteology of Head & Neck
- Arterial Supply & Lymphatic drainage of the head & neck
- Study of cranial nerves – indetail extracranial course 5th, 7th
- Histology of Oral tissues
- Basic chemistry & fate of haemoglobin, blood groups, WBC types, number, variations, function, formation, circulation.
- Pituitary gland - Hormones, actions & abnormal function.
- Inflammation - Acute & chronic inflammation, repair of wound.
- Hemorrhage, Shock, Syncope
- Circulatory disturbances & Hypertension.
- Introduction to Bacteriology with special reference to medical & Dental Bacteriology.
- Immunity & immunizing agents.
- Biochemistry applied to Dental Science.
- Cardiovascular Drugs - Vasopressor agents & treatment of shock.
- Dosage & mode of administration of drugs
- Role of Calcium and vitamins in growth and development of oral tissues
- Drugs acting on blood - anticoagulants, coagulants & hematinic
- Vitamins, proteins, minerals & trace elements
- Antiseptics, astringents.
- Medical emergencies in Dental practice.
- Congenital & rheumatic heart disease.
- Anaemia, coagulation defects, bleeding diseases
- Allergy, Drug reactions
- Blood- composition, functions, ESR, Hemoglobin, Anemia, blood cells, Blood groups.
- ECG, Cardiac output, Heart rate, Cardiac cycle, Blood pressure, Blood volume.
- Hepatitis.
- AIDS
- Autonomic nervous system, spinal cords.
- Physiology of pain, facial palsy, Neuralgia, Epilepsy, Migraine etc.
- Hypoxia, cyanosis, dyspnoea.
- Artificial respiration.
- Infection control, Prevention of cross infection and safe disposal of wastes.
- Applied genetics and Heridity
- General pharmacology and dental pharmacology.
- Concept of essential drugs and national use of drugs.
- General principle of Surgery.
- Biopsy and other investigations.
- Cell biology.
- Necrosis
- Inflammation
- Healing
- Infectious diseases.
• Blood disorders
• Enzyme and metabolic disorders.

B. Dental Subjects :
  ▪ Immunity, knowledge of organisms commonly associated with diseases of oral cavity.
  ▪ Study of Human masticatory apparatus and its functions in healthy and deranged occlusal states & in conditions incidental to partial or complete loss of teeth and/or facial structure.
  ▪ Study of the principle, procedures and techniques of constructing and maintaining various types of dentures and allied prosthesis including the material used.
  ▪ Study of biological & mechanical considerations related to various types of dentures and allied prosthesis.
  ▪ Applied anatomy, physiology, biochemistry of the periodontium.
  ▪ Characteristics of periodontal diseases, etiology, pathogenesis and microbiology.
  ▪ Periodontal Therapeutics.
  ▪ Surgical aspects of Periodontics.
  ▪ Traumatic periodontal disturbances.
  ▪ Inter relationship of periodontal with other dental or clinical disciplines.
  ▪ Public health aspects of Periodontal diseases.
  ▪ Preventive Periodontics.
  ▪ Current advances in periodontics. Guided bone regeneration, procedure/technique, uses and various types of membranes.
  ▪ Basics of laser, types & uses in dentistry.
  ▪ Various types of bone grafts & their uses.
  ▪ Pocket eradication procedures, gingival and periodontal diseases.
  ▪ Hypersensitivity of teeth.
  ▪ History and rationale of conservative procedures.
  ▪ Pathologic and non-pathologic lesions of the hard tissues of the teeth, advanced knowledge of etiology, diagnosis, treatment and prevention.
  ▪ Modern development & advanced knowledge of restorative materials, procedures, cutting tools, drugs and chemicals used in conservative dentistry.
  ▪ Modern biological & mechanical concept.
  ▪ Dental caries-detailed study of research, methods used in studying Dental Caries and its prevention.
  ▪ Conservative dentistry in relation to other branches of dentistry including geriatric dentistry.
  ▪ History and rationale of endodontic procedures.
  ▪ Pulp and periapical pathology, advanced knowledge of etiology, diagnosis, treatment and management of pulp involved in teeth.
  ▪ Bacteriological investigations and intra coronal medication.
  ▪ Advanced knowledge of development of root canal instruments their sterilization and use. Advanced knowledge of restorative materials and operative procedures in endodontics.
  ▪ Etiology, treatment of fractured and traumatized teeth.
  ▪ Endodontic procedures for reimplantation of teeth and fundamentals of surgical procedures for reimplantation of teeth.
  ▪ Metastasis, infections, osteo radionecrosis.
  ▪ Surgical procedures of
    - Diseases and defects of oro facial region.
    - Prosthetic and orthodontics problems.
    - Recent advances in oral and maxilla facial oral surgery in medically compromised patient.
  ▪ General Anaesthesia.
  ▪ Fractures of maxillo-facial region.
  ▪ Growth & development, Anthropology, Genetics, Embryology, Statistics, Nutrition, normal occlusion and variations.
- Malocclusion, Etiology of malocclusion, radiology and Cephalometry, preventive & interceptive orthodontics, corrective orthodontics, development of orthodontics.
- Appliances and techniques.
- Histological changes related to orthodontics treatment, retention and anchorage.
- Congenital & hereditary disorders involving lesions of oro facial region.
- Systemic diseases with oral manifestation.
- Hematological, dermatological & neurological condition with oral manifestation.
- Salivary glands disorders.
- Disease of reticulo endothelial system & autoimmune diseases.
- TMJ Dysfunction.
- Allergy, Forensic odontology & other miscellaneous. Conditions.
- Neoplasm, cysts and premalignant lesions and their management.
- Hazards of radiation.
- Radiological techniques of head & neck region Including C.T. Scan, MRI & Dentascan.
- Radiological anatomy of head & neck & interpretation of X-ray films and differential diagnosis of various radiological finding.
- Principles of Oral and Dental health in children.
- Diagnosis – Examination, diagnostic aids, diagnosis and treatment planning.
- Clinical Pedodontics-
  - Management of developmental anomalies, teething disorders, Dental caries, traumatized teeth, problems of primary & mixed dentition, premature loss of teeth, mouth habits and stomatologic conditions.
- Management of handicapped child.
- Preventive Pedodontics- epidemiology, general and specific preventive measures.
- Psychology- Psychological development from birth to adolescence.
- Management of child in Dental office.
- Child psychology and behavior management.
- Paediatric endodontic management.
- Oral habits in children and adult.
- School and dental public health programme.
- Preventive Dentistry.
  - Concept of prevention level and application of various preventive measures at individual and mass level preventive programme in dentistry.
- Dental auxiliaries.
- Fluorosis & various preventive methods.
- Fluoridation, norms for potability, purification of water.
- Importance of nutrition on health, common disorders related to nutritional deficiencies.
- Epidemiology.
- Survey procedure and various indices.
- Ethics , Dental council of India, Indian Dental Association.
- Basics of oral implantology, various types, procedures and their implication in relation to systemic diseases and fabrication of supra structures.
- Health care delivery system at centre and stat level, health oral policy primary health care, national programs, health orgranational.
- Dental council of India, Indian Dental Association
- Dental material used in dentistry with recent advancement.
- Oral Pathology and oral microbiology in detail.
- Critical care- procedures.
- Tooth morphology, embryology.
- Development of teeth and oral embryology.
- Eruption of teeth.
- Oral Histology.
- Saliva
- Masticatory system and deglutition.
- Local anesthesia and general anesthesia.
- Soft tissue and hard tissue diseases of oral cavity.
- Facial pain and differential diagnosis.
- Management of dental problems in medically compromised patients.
- Principles and technique of impression making.
- Principles of retention and stability.
- Jaw relations.
- Principles of tooth reduction.
- Pontics and retainers in removable and fixed prosthodontics.
- Recent advances in material and techniques in prosthodontics.
- Informed consent and Medico legal issue.
- Financial management of practice.
- Bleaching agents and methods.
- Aesthetic dentistry.
- Exodontia, Impactions, TMJ and Tumour surgery
- Cystic diseases and their management.
- Management of neurological disorders and their management.
- Acquired and congenital disorders and their management.
- Medical emergencies and their management in dental practices.
- Pre prosthetic surgery.
- Reach to the public to motivate and educate regarding dental diseases, their prevention.
- Human Anatomy, Embryology, Histology, applied in general and particularly to head and neck
- Physiology and Biochemistry, Pathology and Microbiology, Virology, health and diseases of the body (Systemic) principles in surgery and medicine, pharmacology, nutrition, behavioral science, age changes, genetics, immunology, congenital defects and syndromes, Anthropology, Bioengineering, Biomedical and Biological principle and application to dental material science.
- Applied Radiology- Ability to read and interpret a radiograph for the purpose of diagnosis and treatment plan.
- Biostatistics – Research Methodology, collection of data, sampling, bias and errors, compiling data, tests and significance.
- Applied Dental Materials – All materials used for treatments- clinical treatment and laboratory materials, associated material, technical consideration, shelf life, storage, manipulation, sterilization and waste management.
- Prosthodontics for edentulous patient – Complete dentures and Implant supported Prosthetics – including diagnosis, treatment planning, manipulating techniques for various treatment options, their fabrication and various adjustments.
- Removable Partial Prosthodontics – Classification, Components, Education of patient, diagnosis and treatment planning.
- Fixed Prosthodontics – Diagnosis and treatment planning, Periodontal consideration, tooth preparation, fabrication, insertion and management of failed restoration.
- Ecology, pathogenesis, diagnosis and management of common Periodontal diseases with emphasis on Indian population.
- Various Preventive Periodontal Measures.
- Various treatment modalities of periodontal diseases.
Consideration for surgical or non surgical management of Periodontal diseases.
Immunology and Infection
Pathogenesis of Plaque associated Periodontal diseases
Gingival and Periodontal diseases – Identification and treatment along with History, examination, diagnosis, prognosis and treatment planning, instrumentation and maintenance
Principles of surgery – Surgical diagnosis, basic necessity for surgery, aseptic techniques, incisions, flap design, hemostasis, dead space management, decontamination and debridement, suturing, edema control, patient general health and nutrition
Pre operative workup
Surgical sutures and drains
Post operative care – Concept of recovery room care, airway management, management of cardiovascular instability in this period, criteria for shifting to the ward, pain management
Wound management
Surgical infection
Airway obstruction/Management, Mouth to Mouth Resuscitation, Endotracheal intubation, Cricothyroidectomy, Tracheostomy.
General patient management – Physical assessment of patient of surgery, Evaluation of patients presenting with acute injuries, particularly to maxillofacial region
TMJ disorders – Identification, Assessment and Management
Hard tissue and soft tissue reconstruction
Autogenous and heterogeneous tissue grafting
Etiology, Pathophysiology, Periapical diagnosis and management of common restorative situations, endodontic situations including management of trauma and pulp pathoses
All levels of restorative works and surgical and non surgical endodontics
Hand and rotary endodontic instrumentation
Direct and indirect concept in tooth preparation for amalgam, composite, GIC, ceramic, inlays, onlays, veneers, crowns etc.
Cast metal restorations
Hyper sensitivity – Theories, causes and management
Various obturating materials – their use and manipulation
Endodontic emergencies and their management
Etiology, Path physiology, diagnosis and treatment planning of various common Orthodontic problems
Applied preventive Orthodontics including Periodontal diseases and caries prevention and oral hygiene management
Principles of routine and special techniques used for histopathology
Advanced histological and histopathological study of dental and oral tissues including embryonic considerations, clinical considerations
Biology histology pathology and concept of oral premalignancy
Oral microbiology and their relationship to various branches of dentistry
Developmental defects of oral maxillofacial regions and abnormalities of teeth
Various labels of prevention
Preventive oral health programmes, screening, health education, behavior management and motivation of child patient
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Pattern of Question Papers:

1. Objective Type Paper
2. Maximum Marks: 100
3. Number of Questions: 100
4. Duration of Paper: Two Hours
5. All Questions carry equal marks
6. There will be Negative Marking

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