

કન્ઝર્વેટીવ ડેન્ટીસ્ટ્રી એન્ડ એન્ડોડોન્ટીક્સ

કુલ પ્રશ્નો:૩૦૦	પ્રાથમિક કસોટીનો અભ્યાસક્રમ	કુલ ગુણ -૩૦૦
	Part-I	
માધ્યમ: ગુજરાતી	સામાન્ય અભ્યાસ	ગુણ -૧૦૦
૧	ભારતની ભૂગોળ- ભૌગોલિક, આર્થિક, સામાજિક, કુદરતી સંસાધન અને વસ્તી અંગેની બાબતો- ગુજરાતના ખાસ સંદર્ભ સાથે	
૨	ભારતનો સાંસ્કૃતિક વારસો- સાહિત્ય, કલા, ધર્મ અને સ્થાપત્યો- ગુજરાતના ખાસ સંદર્ભ સાથે	
૩	ભારતનો ઇતિહાસ - ગુજરાતના ખાસ સંદર્ભ સાથે	
૪	ભારતની અર્થવ્યવસ્થા અને આયોજન	
૫	ભારતીય રાજનીતિ અને ભારતનું બંધારણ: (૧) આમુખ (૨) મૂળભૂત અધિકારો અને ફરજો (૩) રાજ્યનીતિના માર્ગદર્શક સિદ્ધાંતો (૪) સંસદની રચના (૫) રાષ્ટ્રપતિની સત્તા (૬) રાજ્યપાલની સત્તા (૭) ન્યાયતંત્ર (૮) અનુસૂચિત જાતિ, અનુસૂચિત જનજાતિ અને સમાજના પછાત વર્ગો માટેની જોગવાઈઓ (૯) એટર્ની જનરલ (૧૦) નીતિ આયોગ (૧૧) પંચાયતી રાજ (૧૨) નાણા પંચ (૧૩) બંધારણીય તથા વૈધનિક સંસ્થાઓ- ભારતનું ચૂંટણી પંચ, સંઘ લોક સેવા આયોગ, રાજ્ય લોક સેવા આયોગ, કોમ્પ્ટ્રોલર એન્ડ ઓડિટર જનરલ; કેન્દ્રીય સતર્કતા આયોગ, લોકપાલ તથા લોકાયુક્ત અને કેન્દ્રીય માહિતી આયોગ	
૬	સામાન્ય બૌદ્ધિક ક્ષમતા કસોટી	
૭	સામાન્ય વિજ્ઞાન, પર્યાવરણ અને ઈન્ફર્મેશન એન્ડ કોમ્યુનિકેશન ટેકનોલોજી	
૮	ખેલ જગત સહિત રોજબરોજના પ્રાદેશિક, રાષ્ટ્રીય અને આંતરરાષ્ટ્રીય મહત્વના બનાવો	

Post: Conservative Dentistry and Endodontics , Professor Class-I, (Advt. No.03/18-19) in Government Dental College	
Total Questions:300 Syllabus of Preliminary Test Total Marks-300	
Part-I	
Medium: Gujarati	General Study
Marks- 100	
1	Geography of India- Physical, Economic, Social, Natural Resources and population related topics- with special reference to Gujarat
2	Cultural heritage of India- Literature, Art, Religion and Architecture- with special reference to Gujarat
3	History of India with special reference to Gujarat
4	Indian Economy and Planning
5	<u>Indian Polity and the Constitution of India:</u> (1) Preamble (2) Fundamental Rights and Fundamental Duties (3) Directive Principles of State Policy (4) Composition of Parliament (5) Powers of the President of India (6) Powers of Governor (7) Judiciary (8) Provisions for Scheduled Castes, Scheduled Tribes and backward classes of the society (9) Attorney General (10) NITI Aayog (11) Panchayati Raj Institutions (12) Finance Commission (13) Constitutional and Statutory Bodies: Election Commission of India, Union Public Service Commission, State Public Service Commission, Comptroller and Auditor General; Central Vigilance Commission, Lokpal and Lokayukta, Central Information Commission
6	General Mental Ability
7	General Science, Environment and Information & Communication Technology
8	Daily events of Regional, National and International Importance including Sports

Part-II Syllabus Of Preliminary Test
(Conservative Dentistry and Endodontics)

Medium: English

Questions:200

Marks : 200

1. APPLIED ANATOMY OF HEAD AND NECK

Development of face, paranasal sinuses and the associated structures and their anomalies, cranial and facial bones, TMJ anatomy and function, arterial and venous drainage, of head and neck, muscles of face and neck including muscles of mastication and deglutition, brief consideration of structures and function of brain, all cranial nerves and autonomic nervous system of head and neck. Salivary glands, Functional anatomy of mastication, deglutition and speech. Detailed anatomy of deciduous and permanent teeth, general consideration in physiology of permanent dentition, form, function, alignment, contact, occlusion. Internal anatomy of permanent teeth and its significance. Applied histology – histology of skin, oral mucosa, connective tissue, and bone cartilage blood vessels, lymphatic's, nerves, muscles, tongue.

2. DEVELOPMENT OF TEETH

Enamel – development and composition, physical characteristics, chemical properties, structure. Age changes. Pulp – development, histological structures, innervations, functions, regressive changes, clinical considerations. Cemented – composition, cementogenesis, structure, function, clinical consideration. Periodontal ligament – development, structure, function and clinical consideration. Salivary glands – structure, function, clinical considerations. Eruption of teeth.

3. APPLIED PHYSIOLOGY

Mastication, deglutition, digestion and assimilation, fluid and electrolyte balance. Blood composition, volume, function, blood groups, hemostasis, coagulation, blood transfusion, circulation, heart, pulse, blood pressure,

shock, respiration, control, anoxia, hypoxia, asphyxia, artificial respiration, and endocrinology – general principles of endocrine activity and disorders relating to pituitary, thyroid, parathyroid, adrenals including pregnancy and lactation. Physiology of saliva. Clinical significance of vitamins, diet and nutrition. Physiology of pain, sympathetic and Para sympathetic nervous system, pain pathways, physiology of pulpal pain, Odontogenic and non Odontogenic pain, pain disorders – typical and atypical, biochemistry such as osmotic pressure, electrolytic dissociation, oxidation, reduction etc. Carbohydrates, proteins, lipids and their metabolism, nucleoproteins, nucleic acid and their metabolism. Enzymes, vitamins and minerals, metabolism of inorganic elements, detoxification in the body, anti-metabolites, chemistry of blood lymph and urine.

4. PATHOLOGY

Inflammation, repair, degeneration, necrosis and gangrene. Circulatory disturbances. Neoplasms – classifications of tumors, characteristics of benign and malignant tumors, spread tumors. Blood dyscrasias. Developmental disturbances of oral and Para oral structure, dental caries, regressive changes of teeth, pulp, periodical pathology, pulp reaction to dental caries and dental procedures. Bacterial, viral, mycotic infections of the oral cavity.

5. MICROBIOLOGY

Pathways of pulpal infection, oral flora microorganisms associated with endodontic diseases, pathogenesis, host defense, bacterial virulence factors, healing, theory of focal infections, microbes or relevance to dentistry – strepto, staphylococci, lactobacilli, corny bacterium, actinomycetes, clostridium, Neisseria, neisserial, vibrio, bacteria's, fusobacteria, spirochetes, mycobacterium, virus and fungi. Cross infection, infection control, infection control procedure, sterilization and disinfection. Immunology – antigen antibody reaction, infection, allergy, hypersensitivity and anaphylaxis, auto immunity, grafts, viral hepatitis,

HIV infections and aids. Identification and isolation of microorganisms from infected root canals. Culture medium and culturing technique.

6. PHARMACOLOGY

Dosage and route of administration of drugs, actions and fate of drug in body, drug addiction, tolerance of hypersensitivity reactions. Local anesthesia. General anesthesia. Anesthetic emergencies. Antihistamines, corticosteroids, chemotherapeutic and antibiotics, drug resistance, hemostasis, and hemostatic agents, anticoagulants, sympathomimetic drugs, vitamins and minerals, anti-sialagogue, immunosuppressant's, drug interactions, antiseptics, disinfectants, anti-viral agents, drugs acting on CNS.

7. APPLIED DENTAL MATERIAL

Physical and mechanical properties of dental materials, biocompatibility. Impression materials, detailed study of various restorative materials, restorative resin and recent advances in composite resins, bonding-recent developments – tarnish and corrosion, dental amalgam, direct filling gold, casting alloys, inlay wax, die materials, investments, casting procedures, defects, dental cements for restoration and pulp protection, cavity varnishes. Dental ceramics-recent advances, finishing and polishing materials. Dental burs – design and mechanics of cutting – other modalities of tooth preparation. Methods of testing biocompatibility of materials used.

8. CONSERVATIVE DENTISTRY

Examination, diagnosis and treatment plan. Occlusion as related to conservative dentistry, contact, contour, its significance. Separation of teeth, matrices, used in conservative dentistry. Dental caries – epidemiology, recent tests, prevention of dental caries and management – recent methods. Hand and rotary cutting instruments, development of rotary equipment, speed ranges, hazards. Dental hurs and other modalities of tooth reparation – recent developments. Infection control procedures in

conservative dentistry, isolation equipment's etc. Direct concepts in tooth preparation for amalgam, composite, GIC and restorative techniques, failures and management. Direct and indirect composite restorations. Indirect tooth colored restorations. Tissue management. Impression procedures used for indirect restorations. Cast metal restorations, indications, contraindications, tooth preparation for class 2 inlay, Onlay full crown restorations. Restorative techniques, direct and indirect methods of fabrication including materials used for fabrication like inlay wax, investment materials and Direct gold restorations. Recent advances in restorative materials and procedures. Management of non-carious lesion. Advance knowledge of minimal intervention dentistry. Recent advances in restoration of endodontically treated teeth and grossly mutilated teeth. Hypersensitivity, theories, causes and management. Lasers in Conservative Dentistry. CAD-CAM & CAD-CIM in restorative dentistry. Dental imaging and its applications in restorative dentistry. Principles of esthetics.

9. ENDODONTICS

Rational of endodontic. Knowledge in internal anatomy of permanent teeth, anatomy of root apex and its implications in endodontic treatment. Dentin and pulp complex. Pulp and periodical pathology. Pathobiology of periapex. Diagnostic procedure. Case selection and treatment planning. Infection control procedures used in Endodontic. Access cavity preparation. Endodontic instruments and instrumentation. Working length determination / cleaning and shaping of root canal system and recent development in techniques of canal preparation. Root canal irritants and intra canal medicaments used including non – surgical Endodontic by calcium hydroxide. Endodontic microbiology. Obturating materials, various obturation techniques and recent advances in obturation of root canal. Traumatic injuries and management. Endodontic surgeries, recent developments in technique and devices, endosseous endodontic implants. Endoperio interrelationship, endo + Perio lesion and management. Drugs

and chemicals used in Endodontics. Endo emergencies and management. Restoration of edodontically treated teeth, recent advances. Geriatric Endodontics. Endo emergencies and management. Biologic response of pulp to various restorative materials and operative procedures. Lasers in Endodontics. Multidisciplinary approach to endodontic situations. Endodontics radiology – digital technology in endodontic practice. Local anesthesia in endodontic. Procedural errors in endodontic and their management. Endodontics failures and retreatment. Resumptions and its management. Microscopes in endodontic. Single visit endodontic, current concepts and controversies.

10. BIOSTATISTICS AND RESEARCH MEHODOLOGY

Study of Biostatistics as applied to dentistry and research. Understanding and evaluating dental research, scientific method and the behavior of scientists, understanding to 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 measurement, Research Strategies, Observation, Correlation, Experimentation and Experimental design. Logic of statistical interference balance judgments, judgment under uncertainty, clinical vs. scientific judgment, problem with clinical judgment, forming scientific judgments, the problem of contradictory evidence, citation analysis as a Means of literature evaluation, influencing judgment : Lower forms of Rhetorical life, Denigration, Terminal, Inexactitude.

11. Current Trends and Recent Advancements in Conservative Dentistry and Endodontics.