

પ્રોસ્થોડોન્ટીક્સ, કાઉન એન્ડ બ્રીજ

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	<p><u>ભારતીય રાજનીતિ અને ભારતનું બંધારણ:</u></p> <p>(૧) આમુખ</p> <p>(૨) મૂળભૂત અધિકારો અને ફરજો</p> <p>(૩) રાજ્યનીતિના માર્ગદર્શક સિદ્ધાંતો</p> <p>(૪) સંસદની રચના</p> <p>(૫) રાષ્ટ્રપતિની સત્તા</p> <p>(૬) રાજ્યપાલની સત્તા</p> <p>(૭) ન્યાયતંત્ર</p> <p>(૮) અનુસૂચિત જાતિ, અનુસૂચિત જનજાતિ અને સમાજના પછાત વર્ગો માટેની જોગવાઈઓ</p> <p>(૯) એટર્ની જનરલ</p> <p>(૧૦) નીતિ આયોગ</p> <p>(૧૧) પંચાયતી રાજ</p> <p>(૧૨) નાણા પંચ</p> <p>(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</p>	
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: Prosthodontics, Crown and Bridge, Professor Class-I, (Advt. No.08/18-19) 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
(Prosthodontics, Crown and Bridge)**

Medium: English

Questions:200

Marks : 200

1. Applied Anatomy of Head and Neck:

General Human anatomy – Gross Anatomy, anatomy of Head and Neck in detail. General consideration of the structure and function of the brain. Embryology, Growth & Development. Dental Anatomy. Histology. Anthropology & Evolution. Applied Genetics and Heredity. Cell biology.

2. 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.

3. Endocrines:

General principle 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.

4. Applied Nutrition:

General principles, balanced diet, effect of dietary deficiencies and starvation, Diet, digestion, absorption, transportation and utilization, diet for elderly patients.

5. Applied Biochemistry:

General principles governing the various biological activities of the body, such as osmotic pressure, electrolytic dissociation, oxidation-reduction, etc. general composition of the body, intermediary metabolism, Carbohydrates, proteins, lipids and their metabolism, Enzymes, Vitamins, and minerals, Hormones, Blood and other body fluids, Metabolism of inorganic elements, Detoxification in the body, Anti metabolites.

6. Applied Pharmacology and Therapeutics:

Definition of terminologies used – Dosage and mode of administration of drugs. Action and effect of drugs in the body, Drug addiction, tolerance and hypersensitive reactions, Drugs acting on the central nervous system, general anesthetics, anti-tubercular and anti-syphilitic drugs, analgesics and antipyretics, Antiseptics, styptics, Sialagogues and antisialogogues, Hematinic, Cortisone, ACTH, insulin and other antidiabetics vitamins: A, B, C, - complex group C and K etc. Chemotherapy and Radiotherapy.

7. 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.

8. 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 periodical 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.

9. Applied Radiology:

Introduction radiation, background of radiation, sources, radiation biology, somatic damage, genetic damage, protection form primary and secondary radiation, Principles of X-ray precaution, Application principle of radio therapy and after care.

10. Roentdenoraphic 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.

11. Applied Medicine:

Systemic diseases and its influence on general health and oral and dental 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, apremedication, and management of ambulatory patients, resuscitation, monitoring, extubation, complication assist in O.T. for anesthesia.

12. 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.

13. Plastic Surgery:

Applied understanding and assistance in programs of plastic surgery for prosthodontics therapy.

14. 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. 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. TMJ syndromes, occlusion rehabilitation and craniofacial esthetics. State of the art clinical methods and materials for implants supported extra oral and intra oral prosthesis.

15. 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.

16. 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, Cancer Chemotherapy, Radiation therapy of head and neck tumors, Dental manifestations and dental treatment, 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, Esophageal prosthesis, Vaginal radiation carrier, Burn stents, Nasal stents, Auditory inserts, trismus appliances, mouth controlled devices for assisting the handicapped, custom prosthesis for logophthalmos of the eye. Osseo integrated supported facial and maxillofacial prosthesis. Resin bonding for maxillofacial prosthesis, Implant rehabilitation of the mandible compromise by radiotherapy, Craniofacial Osseo Prosthodontic treatment, Material and laboratory procedures for maxillofacial prosthesis.

17. Evaluation, Diagnosis and Treatment of Occlusal Problems:

Scope, definition, terminology, optimum oral health, anatomic and functional harmony, 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, extra oral and facial musculatures, functions of Cranio mandibular 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-schuyle 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 occlusions, requirements for occlusal equilibration, Bruxism, 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, splayed interior teeth, cross bite patient, Crowded, irregular, or interlocking – end to end occlusion, splayed anterior teeth, cross bite patient, Crowded, irregular, or interlocking anterior bite, using Cephalometric for occlusal analysis, solving severe arch malrelationship problems, transcranial radiography, postoperative care of occlusal therapy.

18. Fixed Prosthodontics

Scope, definitions and terminology, classification and principles, design, mechanical and biological considerations of components – Retainers, connectors, pontics, work authorization. Diagnosis and treatment planning. Management of Carious teeth. Periodontal considerations. Biomechanical principle of tooth preparations. Isolation and fluid control. Resins, Gold and gold alloys, glass Inomer, restorations. Restorations of endodontically treated teeth, Stomatognathic Dysfunction and management. Management of failed restorations. Osseo integrated supported fixed Prosthodontics.

19. TMJ – Temporomandibular Joint Dysfunction

Scope, definitions, and terminology. Temporomandibular joint and its function, Orofacial pain, and pain from the temporomandibular joint region, temporomandibular joint dysfunction, temporomandibular joint sounds, temporomandibular joint disorders. Anatomy related, trauma, disc displacement, Osteoarthritis/Osteoarthritis, Hyper mobility and dislocation, inductions arthritis, inflammatory diseases, Eagle's syndrome, synovial chondromatosis, Osteochondritis disease, Osteonecrosis, Nerve entrapment process, Growth changes, Tumors, Radiographic imaging. Etiology, diagnosis and Cranio mandibular pain, differential diagnosis and management of orofacial pain. Occlusal splint therapy. Occlusal adjustment procedures.

20. Aesthetic

Morpho psychology and esthetics, structural esthetic rules – facial components, dental components, gingival components and physical components. Esthetics and its relationship to function – Crown morphology, 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.

21. BIOSTATISTICS AND RESEARCH METHODOLOGY:

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.

22. **Current Trends and Recent Advancements in Prosthodontics, Crown and Bridge.**