

પ્રાથમિક કસોટીનો અભ્યાસક્રમ	
પ્રશ્નપત્ર-૧ (Part-I)	
જા.ક- ૧૧૫/૨૦૧૯-૨૦, ડેન્ટલ સર્જન, ગુજરાત આરોગ્ય અને તબીબી સેવા(તજજ્ઞ સેવા), વર્ગ-૧	
માધ્યમ: ગુજરાતી	
કુલ 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 વૈધનિકસંસ્થાઓ- ભારતનું ચૂંટણી પંચ, સંઘ લોક સેવા આયોગ, રાજ્ય લોક સેવા આયોગ, કોમ્પ્ટ્રોલર એન્ડ ઓડિટર જનરલ; કેન્દ્રીયસતર્કતા 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

<p style="text-align: center;">Syllabus of Preliminary Test</p> <p style="text-align: center;">Paper-1 (Part-I)</p> <p>Advt- 115/2019-20, Dental Surgeon, Gujarat Health and Medical Service (Specialist Service), Class-1</p> <p>Medium: Gujarati Total Marks- 100</p>	
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> <ol style="list-style-type: none"> (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

**Syllabus for the preliminary test for the recruitment on the post
of Dental Surgeon (Specialist Service), Class-I in Gujarat Health
and Medical Services**

(Advt No.115/2019-20)

Marks – 200

Questions – 200

Medium - English

1. APPLIED BASIC SCIENCES:

Applied Anatomy of head and neck, Applied Physiology and Nutrition, Applied Biochemistry, Applied Pharmacology And Therapeutics, Applied Pathology, Applied Microbiology, Applied Oral Pathology, Laboratory Determinations, Biostatistics, Applied Radiology, Applied Medicine, Applied Surgery & Anesthesia, Applied Plastic Surgery, Applied Anatomy, Applied Physiology, Embryology , Anatomy And Development Of Teeth

2. PROSTHODONTICS AND CROWN & BRIDGE:

ORAL AND MAXILLOFACIAL PROSTHODONTICS AND IMPLANTOLOGY:

Non-Surgical And Surgical Methods Of Prosthodontics And Implantology :

Prosthodontic treatment for edentulous patients, Edentulous Predicament , Effects of aging of edentulous patients, Sequelae caused by wearing complete denture, Temporomandibular disorders in edentulous patients, Nutrition Care for the denture wearing patient, Preparing patient for complete denture patients, Pre prosthetic surgery, Non surgical methods, Surgical methods, Immediate Denture, Over dentures, Single Dentures, Art of communication in the management of the edentulous predicament, Materials prescribed in the management of edentulous patients, Articulators, Fabrication of complete dentures, Mandibular movements, Maxillo mandibular relations and concepts of occlusion, Selecting and arranging artificial teeth and occlusion for the edentulous patient, Speech considerations with complete dentures & speech production, Waxing contouring and processing the dentures their fit and insertion and after care, Implant supported Prosthesis for partially edentulous patients.

3. **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. **Cancer Chemotherapy:** Oral Manifestations, Complications, and management, **Radiation therapy of head and neck tumors:** Oral effects, Dental manifestations and dental treatment: Etiology, treatment and rehabilitation 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.

4. **OCCLUSION :**

Evaluation, Diagnosis and treatment of Occlusal problems:

Scope, definition, terminology, optimum oral health, anatomic harmony, 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 and extra oral and facial musculatures and the 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-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, splaed anterior teeth, cross bite problems, Crowded, irregular, or interlocking anterior bite. Using Cephalometric for occlusal analysis, solving severe arch malrelationship problems, transcranial radiography, postoperative care of occlusal therapy.

5. FIXED PROSTHODONTICS:

Diagnosis and treatment planning, Management of Carious teeth, Periodontal considerations, Biomechanical principles of tooth preparation, Isolation and fluid control, Resins, Gold and gold alloys, glass Ionomer, restorations, Restoration of endodontically treated teeth, Stomatognathic Dysfunction and management, Management of failed restorations, Osseo integrated supported fixed, Prosthodontics –Osseo integratedsupported and tooth supported fixed Prosthodontics, CAD – CAM Prosthodontics

6. 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, Osteoarthrosis/Osteoarthritis, Hyper mobility and dislocation, infectious arthritis, inflammatory diseases, Eagle's syndrome (Styloid – stylohyoid syndrome), Synovial chondromatosis, Osteochondrosis disease, Osteonecrosis, Nerve entrapment process, Growth changes, Tumors, Radiographic imaging, Etiology, diagnosis and cranio mandibular pain, differential diagnosis and management of orofacial pain – pain

from teeth, pulp, dentin, muscle pain, TMJ pain – psychologic, physiologic – endogenous control, acupuncture analgesia, Placebo effects on analgesia, Trigeminal neuralgia, Temporal arteritis, Occlusal splint therapy – construction and fitting of occlusal splints, management of occlusal splints, therapeutic effects of occlusal splints, occlusal splints and general muscles performance, TMJ joint uploading and anterior repositioning appliances, use and care of occlusal splints, Occlusal adjustment procedures – Reversible – occlusal stabilization splints and physical therapies, jaw exercises, jaw manipulation and other physiotherapy or irreversible therapy – occlusal repositioning appliances, orthodontic treatment, Orthognathic surgery, fixed and removable prosthodontic treatment and occlusal adjustment, removable prosthodontic treatment and occlusal adjustment. Indication for occlusal adjustment, special nature of orofacial pain, Psychopathological considerations, occlusal adjustment philosophies, mandibular position, excursive guidance, occlusal contact scheme, goals of occlusal adjustment, significance of a slide in centric, Preclinical procedures, clinical procedures for occlusal adjustment.

7. ESTHETICS :

SCOPE, DEFINITIONS :

morpho psychology and esthetics, structural esthetic rules – facial components, dental components, gingival components and physical components. Esthetics and its relationship to function – 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. Prosthodontic treatment should be practiced by developing skills, by treating various and more number of patients to establish skill to diagnose and treatment and after care with bio-mechanical, biological, bio-esthetics, bio-phonetics. All treatments should be carried out in more

numbers for developing clinical skills, Infection control, cross infection barrier – clinical & lab ; hospital & lab waste management

8. ORAL AND MAXILLOFACIAL SURGERY:

- **Minor Oral Surgery :**

Principles of Surgery, Medical Emergencies, Examination and Diagnosis, Haemorrhage and Shock, Exodontia, Impaction, Surgical aids to eruption of teeth, Transplantation of teeth , Surgical, Endodontics, Preprosthetic Surgery, Procedures to Improve Alveolar Soft Tissues, Infections of Head and Neck, Chronic infections of the jaws, Maxillary Sinus, Cysts of the Orofacial Region, Neurological disorders of the Maxillofacial Region, Implantology, Anesthesia

- **Maxillofacial Trauma**

Surgical Anatomy of Head and Neck, Etiology of Injury, Basic Principles of Treatment, Primary Care: resuscitation, establishment of airway, management of hemorrhage, management of head injuries and admission to hospital, Diagnosis: clinical, radiological, Soft Tissue Injury of Face and Scalp: classification and management of soft tissue wounds, injuries to structure requiring special treatment, Dento Alveolar Fractures: examination and diagnosis, classification, treatment, prevention, Mandibular Fractures: classification, examination and diagnosis, general principles of treatment, complications and their management, Fracture of Zygomatic Complex: classification, examination and diagnosis, general principles of treatment, complications and their management, Orbital Fractures: blow out fractures, Nasal Fractures, Fractures of Middle Third of the Facial Skeleton: emergency care, fracture of maxilla, and treatment of Le Fort I, II, III, fractures of Naso orbito ethmoidal region, Ophthalmic Injuries: minor injuries, non-perforating injuries, perforating injuries, retro bulbar hemorrhage, and traumatic optic neuropathy, Traumatic Injuries To Frontal Sinus: diagnosis, classification, treatment, Maxillofacial Injuries in Geriatric and Pediatric Patients, Gun Shot Wounds and War Injuries, Osseointegration in Maxillofacial Reconstruction, Metabolic Response to Trauma: neuro endocrine responses, inflammatory mediators, clinical implications, Healing of Traumatic Injuries: soft tissues, bone, cartilage,

response of peripheral nerve to injury, Nutritional consideration following Trauma, Tracheostomy: indications and contraindications, procedure, complications and their management.

- **Maxillofacial Surgery**

Salivary gland, Temporomandibular Joint, Oncology, Orthognathic surgery, Cysts and tumors of oro facial region, Laser surgery, Cryosurgery, Cleft lip and palate surgery, Aesthetic facial surgery, Craniofacial surgery

9. CONSERVATIVE DENTISTRY AND ENDODONTICS:

- **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 concept of etiological factors, pathophysiology, histopathology, diagnosis, caries activity tests, prevention of dental caries and management – recent methods, Hand and rotary cutting instruments, development of rotary equipment, speed ranges, hazards, Dental burs and other modalities of tooth reparation- recent developments (air abrasions, lasers etc.) , Infection control procedures in conservative dentistry, isolation equipments etc), Direct concepts in tooth preparation for amalgam, composite, GIC and restorative techniques, failures and management, Biologic response of pulp to various restorative materials and operative procedures, Direct and indirect composite restorations, Indirect tooth colored restorations- ceramic, inlays and onlays, veneers, crowns, recent advances in fabrication and gingival tissue management, Impression procedures used for indirect restorations, Cast metal restorations, indications, contraindications, tooth preparation for class II inlay, onlay, full crown restorations, Restorative techniques, direct and indirect methods of fabrication including material used for fabrication like inlay wax, investment materials and casting, Direct gold restorations, Recent advances in restorative materials, Esthetics including smile design, Management of non-carious lesions, Management of discolored tooth, 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 in restorative dentistry, Digital imaging and its applications in restorative dentistry, Clinical Photography

10. Endodontics :

Rationale of endodontics , Pulp and periapical pathology, Pathobiology of periapex., Diagnostic procedures – Orofacial dental pain emergencies: endodontic diagnosis and management, recent advances used for diagnosis, Case selection and treatment planning, Endodontic microbiology, Infection control procedures used in Endodontics (aseptic techniques such as rubber dam, sterilization of instruments etc.), Endodontic emergencies and management, Access cavity preparation – objectives and principles, Endodontic instruments and instrumentation – recent developments, detailed description of hand, rotary, sonic, ultra sonic etc, Working length determination, cleaning and shaping of root canal system and recent developments in techniques of canal preparation, Root canal irrigants and intra canal medicaments, Obturation materials, techniques and recent advances, Traumatic injuries and management – endodontic treatment for young permanent teeth, Endodontic surgeries, recent developments in technique and devices and wound healing, Endoperio interrelationship and management., Lasers in Endodontics, Multidisciplinary approach to endodontic situations, Radiology and CBCT in endodontic practice, Procedural errors in endodontics and their management, Endodontic failures and retreatment, Resorptions and its management., Microscopes and Microsurgery in endodontics., Single visit endodontics, current concepts and controversies, Regenerative Endodontics

11. CURRENT TRENDS AND RECENT ADVANCEMENTS IN THE FIELD OF DENTAL.