જગ્યાનું નામ: સરકારી ડેન્ટલ કોલેજોમાં મદદનીશ પ્રાધ્યાપક વર્ગ-૧(જા.ક્ર.-૧૧/૧૮-૧૯)

ઓરલ મેડીસીન એન્ડ રેડીયોલોજી

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	<u>ભારતીય રાજનીતિ અને ભારતનું બંધારણ:</u> (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

Syllabus of Preliminary Test for the recruitment of Assistant Professor Class-I,

(Advt. No.11/18-19)

"Oral Medicine & Radiology"

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	Indian Polity and the Constitution of India: (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

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Part-II Syllabus Of Concerned Subject

(Oral Medicine and Radiology)

Medium: English **Questions:200**

Marks : 200

1. APPLIED ANATOMY

Gross anatomy of the face, Neck region, Oral Cavity, Nasal Cavity and Pharynx.

2. EMBRYOLOGY

Development of face, palate, nasal septum and nasal cavity, Paranasal air sinuses. Pharyngeal apparatus in detail including the floor of the primitive pharynx. Development of salivary glands. Congenital anomalies of face must be dealt in detail.

3. HISTOLOGY

Study of epithelium of oral cavity and the respiratory tract. Connective tissue. Muscular tissue. Nervous tissue. Blood vessels. Cartilage. Bone and tooth. Tongue. Salivary glands. Tonsil, thymus, lymph nodes.

4. PHYSIOLOGY

General Physiology: Cell, Body Fluid Compartments, Cellular transport, RMP and action potential. Muscle Nerve Physiology: Structure of a neuron and properties of nerve fibers, Structure of muscle fibers and properties of muscle fibers, Neuromuscular transmission, Mechanism of muscle contraction. Blood: RBC and Hb, WBC, Platelets, Plasma proteins, Blood Coagulation with applied aspects, Blood groups, Lymph and applied aspects. Respiratory System. Cardio-Vascular System. Excretory System. Gastro – intestinal tract. Endocrine System. Central Nervous System. Special Senses: Gustation and Olfaction.

5. BIOCHEMISTRY

Carbohydrates: Disaccharides specifically maltose, lactose, sucrose, Digestion of starch/absorption of glucose, Metabolism of glucose, specifically glycolysis, TCA cycle, gluconeogenesis, Blood sugar regulation, Glycogen storage regulation, Glycogen storage diseases, Galactosemia and fructosemia.

Lipids: fatty acids, metabolism of fatty acids, Outline of cholesterol metabolism.

Protein: Amino acids, Transamination / Deamination, Urea cycle, Tyrosine-Hormones synthesized from tyrosine, in born errors of amino acid metabolism, Methionine and transmethylation.

Nucleic Acids: Purines/Pyrimidines, Purine analogs in medicine, DNA/RNA, Transcription / translation, Steps of protein synthesis, Inhibitors of protein synthesis, Regulation of protein synthesis, Regulation of gene function.

Minerals: Calcium/Phosphorus metabolism specifically regulation of serum calcium levels, Iron metabolism, Iodine metabolism, Trace elements in nutrition.

Energy Metabolism: Basal metabolic rate, Specific dynamic action (SDA) of foods.

Vitamins: Mainly these vitamins and their metabolic role-specifically vitamin A, Vitamin C, Vitamin D, Thiamin, Riboflavin, Niacin, Pyridoxine.

6. PATHOLOGY:

Inflammation. Homeostasis. Shock: Pathogenesis of hemorrhagic, neurogenic, septic, cardiogenic shock, circulatory disturbances, ischemic hyperemia, venous congestion, edema, infarction. Chromosomal Abnormalities: Marfan's syndrome, Euler's Dandles Syndrome, Fragile X Syndrome. Hypersensitivity. Neoplasia: Classification of Tumors, Carcinogenesis & Carcinogens –

Chemical, Viral and Microbial, Grading and Staging of Cancer, tumor angiogenesis, Paraeoplastic Syndrome, Spread of tumors, Characteristics of benign and malignant tumors. Other: Sex linked agamaglobulinemia, AIDS, Management of Immune deficiency patients requiring surgical procedures, De George's Syndrome, Ghons complex, post primary pulmonary tuberculosis – pathology and pathogenesis.

7. PHAMACOLOGY

Definition of terminologies used. Dosage and mode of administration of drugs. Action and fate of drugs in the body. Drugs acting on the CNS. Drug addiction, tolerance and hypersensitive reactions. General and local anesthetics, hypnotics, antiepileptics, and & tranquilizers. Chemotherapeutics and antibiotics. Analgesics and anti – pyretic. Anti – tubercular and anti – syphilitic drugs. Antiseptics, sialagogues, and anti – sialagogues. Haematinics. Anti – diabetics. Vitamins – A B complex, C, D, E, k. Steroids.

8. ORAL AND MAXILLOFACIAL RADIOLOGY

History of radiology, structure of x – ray tube, production of x – ray, property of x – rays. Biological effects of radiation. Filtration of collimation, grids and units of radiation. Films and recording media. Processing of image in radiology. Design of X-ray department, dark room and use of automatic processing units. Localization by radiographic techniques. Faults of dental radiographs and concept of ideal radiograph. Quality assurance and audit in dental radiology. Extra – oral – imagine techniques. OPG and other radiologic techniques. Advanced imaging technique like CT Scan, MRI, Ultrasound & thermo graphic. Radio nucleotide techniques. Contrast radiography in salivary gland, TMJ, and other radiolucent pathologies. Radiation protection and ICRP guidelines. Art of radiographic report, writing and descriptors preferred in reports.

Radiograph differential diagnosis of radiolucent, opaque and mixed lesions. Digital radiology and its various types of advantages.

9. ORAL MEDICINE, THERAPEUTICS AND LABORATORY INVESTIGATIONS

Methods of clinical diagnosis of oral and systemic diseases as applicable to oral tissue including modern diagnostic techniques. Laboratory investigations including special investigations of oral and oro – facial diseases. Teeth in local and systemic diseases, congenital, and hereditary disorders. Oral manifestations of systemic diseases. Oro – facial pain. Psychosomatic aspects of oral diseases. Management of medically compromised patients including medical emergencies in the dental chair. Congenital and hereditary disorders involving tissues of oro facial region

Systemic disease due to oral foci of infection. Hematological, Dermatological, Metabolic, Nutritional, & Endocrinal conditions with oral manifestations. Neuromuscular disease affecting oro-facial region. Salivary gland disorders. Tongue in oral and systemic diseases. TMJ dysfunction and disease. Concept of immunity as related to oro-facial lesions, including AIDS. Cysts, Neoplasms, Odontomes, and fibro-osseous lesions. Oral changes in Osteo - dystrophies and condro – dystrophies. Pre malignant and malignant lesions of oro facial – dystrophies. Allergy and other miscellaneous conditions. Therapeutics in oral medicine-clinical pharmacology. Forensic odontology. Computers in oral diagnosis and imaging. Evidence based oral care in treatment planning. Molecular Biology.

10. 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.

11. Current Trends and Recent Advancements in Oral Medicine and Radiology.