

જ્યાનું નામ: (૧) મદદનીશ પ્રાધ્યાપક વર્ગ-૦૧ (જા.ક.૧૦/૧૮-૧૯)

વિષય: “પબ્લીક હેલ્થ ડેન્ટીસ્ટ્રી”

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	

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<b>Syllabus of Preliminary Test for the recruitment, Assistant Professor Class-I, (Advt. No. 10/18-19) Public Health Dentistry</b>		
Total Questions:300    Syllabus of Preliminary Test    Total Marks-300		
<b>Part-I</b>		
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 Concerned Subject**

**Medium: English**

**Questions:200**

**Marks : 200**

**1. APPLIED ANATOMY AND HISTOLOGY**

**Applied anatomy in relation to:** Development of face. Bronchial arches. Muscles of facial expression. TMJ. Salivary gland. Tongue. Hard and soft palate. Infratemporal fossa. Paranasal air sinuses. Pharynx and larynx. Cranial and spinal nerves – with emphasis on trigeminal, facial, glossopharyngeal and hypoglossal nerve. Osteology of maxilla and mandible. Blood supply, venous and lymphatic drainage of head and neck. Lymph nodes of head neck. Structure and relations of alveolar process and edentulous mouth. Genetics-fundamentals.

**Oral Histology:** Development of dentition, Innervations of dentin and pulp. Perijodontium-development, histology, blood supply, nerve supply and lymphatic drainage. Oral mucous membrane. Pulp-periodontal complex.

**2. APPLIED PHYSIOLOGY AND BIOCHEMISTRY:**

Cell, Mastication and deglutition. Food and nutrition. Metabolism of carbohydrates, proteins and fats. Vitamins and minerals. Fluid and electrolyte balance. Pain pathway and mechanism-types, properties. Blood composition and functions, clotting mechanism and erythropoiesis, Blood groups and transfusions, Pulse and blood pressure, Dynamics of blood flow. Cardiovascular homeostasis – heart sounds. Respiratory system: Normal physiology and variations in health and disease, Asphyxia and artificial respiration. Endocrinology: thyroid, parathyroid, adrenals, pituitary, sex hormones and pregnancy, Endocrine regulation of blood sugar.

**3. APPLIED PATHOLOGY, MICROBIOLOGY & ORAL PATHOLOGY**

Pathogenic mechanism of molecular level. Cellular changes following injury: Inflammation and chemical mediators, Oedema, thrombosis and embolism, Hemorrhage and shock, Neoplasia and metastasis, Blood disorders. Histopathology and pathogenesis of dental caries, periodontal disease, oral mucosal lesions, and malignancies, HIV. Propagation of dental infection. Microbial flora of oral cavity. Bacteriology of dental caries and periodontal disease. Methods of sterilization. Virology of HIV, herpes, hepatitis. Parasitology. Basic immunology. Detailed description of disease affecting the oral mucosa, teeth, supporting tissues and jaws.

**4. PHYSICAL AND SOCIAL ANTHROPOLOGY**

Introduction and definition. Appreciation of the biological basis of health and disease. Evolution of human race. Various studies of different races by anthropological methods.

**5. APPLIED PHARMACOLOGY:**

Definition, scope and relations to other branches of medicine, mode of action, bioassay, standardization, pharmacodynamics, pharmacokinetics. Chemotherapy of bacterial infections and viral infections – sulphonamides and antibiotics. Local anesthesia. Analgesics and anti-inflammatory drugs. Hypnotics, tranquilizers and antipyretics. Important hormones-ACTH, cortisone, insulin and oral antidiabetics. Drug addiction and tolerance. Important pharmacological agents in connection with autonomic nervous system-adrenaline, noradrenaline, atropine. Brief mention of antihypertensive drugs. Emergency drugs in dental practice. Vitamins and haemopoietic drugs.

## 6. PUBLIC HEALTH

Definition, concepts and philosophy of dental health. History of public health in India and at international level. Terminologies used in public health. Public health practice and administration system in India.

**Health:** Definition, concepts and philosophy of health. Health indicators. Community and its characteristics and relation to health.

**Disease:** Definition, concepts. Multifactorial causation, natural history, risk factors. Disease control and eradication, evaluation and causation, infection of specific diseases. Vaccines and immunization.

**General Epidemiology:** Definition and aims, general principles. Multifactorial causation, natural history, risk factors. Methods in epidemiology, descriptive, analytical, experimental and classic epidemiology of specific diseases, uses of epidemiology. Duties of epidemic, and pandemic. General idea of method of investigating chronic disease, mostly non-infectious nature, epidemic, endemic, and pandemic. Ethical conversation in any study requirement. New knowledge regarding ethical subjects. Screening of diseases and standard procedures used.

**Environmental Health:** Impact of important components of the environment of health. Principles and methods of identification, evaluation and control of such health hazards. Pollution of air, water, soil, noise, food. Water purification, international standards of water. Domestic and industrial toxins, ionizing radiation. Occupational hazards. Waste disposal – various methods and sanitation.

**Public Health Education:** Definition, aims, principles of health education. Health education, methods, models, contents, planning health education programs.

**Ethics and Jurisprudence:** Basic principles of law. Contract laws – dentist – patient relationships & Legal forms of practice. Dental

malpractice. Person identifications through dentistry. Legal protection for practicing dentist. Consumer protection act.

**Nutrition In Public Health:** Study of science of nutrition and its application to human problem. Nutritional surveys and their evaluations. Influence of nutrition and diet on general health and oral health, dental caries, periodontal disease and oral cancers. Dietary constituents and carcinogenicity. Guidelines for nutrition

**Behavioral Sciences:** Definition and introduction Sociology and Psychology.

**Hospital Administration:** Departmental maintenance, organizational structures. Types of practices. Biomedical waste management.

**Health Care Delivery System:** International, national and state oral health care delivery systems – Review. National and health policy and health Programme. Primary health care. National and international health organizations. Dentists Act. 1928, Dental council of India, Ethics, Indian Dental Association. Role of W.H.O. and Voluntary organizations in Health Care for the Community.

**Oral Biology and Genetics:** A detailed study of cell structure. Introduction to Genetics, Gene structure, DNA, RNA. Genetic counseling, gene typing. Genetic approaches in the study of oral disorders. Genetic Engineering.

## **7. DENTAL PUBLIC HEALTH**

History, Definition and concepts of dental public health. Differences between clinical and community dentistry. Critical review of current practice. Dental problem of specific population groups such as chronically ill, handicapped and institutionalized group. Epidemiology of oral diseases and conditions. Oral survey procedures. Delivery of Dental Care: Dental person power – dental auxiliaries. Dentist – population ratios. Public dental care programs. School dental health programs. Private practice and group practice.

National and international Oral health policy. Payment for dental care. Problems in public and private oral health care system program Evaluation of quality of services, governmental control.

## **8. PREVENTIVE DENTISTRY**

Levels of prevention. Preventive oral health programs screening, health education and motivation. Prevention of all dental disease- dental caries, periodontal disease, oral cancer, malocclusion and Dentofacial anomalies. Role of dentist in prevention of oral disease at individual and community level.

**Fluoride:** History, Mechanism of action, Metabolism, Fluoride toxicity, Fluorosis, Systemic and topical preparations, Advantages and disadvantages of each. Update regarding Fluorosis. Epidemiological studies. Methods of fluoride supplements. Defluoridation techniques.

Plaque control measures. Pit and fissure sealant, ART. Preventive oral health care for medically compromised individual. Update on recent preventive modalities. Caries vaccines. Dietary counseling.

## **9. PRACTICE MANAGEMENT**

Definition. Principles of management of dental practice and types. Organization and administration of dental practice. Ethical and legal issues in dental practice.

## **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 Public Health Dentistry.**