

જ્યાનું નામ: (૧) મદદનીશ પ્રાધ્યાપક વર્ગ-૧ (જા.ક.૧૨/૧૮-૧૯)

વિષય: “ઓર્થોડોન્ટીક્સ એન્ડ ડેન્ટોફેશીયલ ઓર્થોપેડીક્સ”

કુલ પ્રશ્નો:300	પ્રાથમિક કસોટીનો અભ્યાસક્રમ	કુલ ગુણ -300
	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	

Syllabus of Preliminary Test for the recruitment, Assistant Professor Class-I, (Advt. No. 12/18-19) (Orthodontics and Dentofacial Orthopaedics)	
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

Syllabus of Preliminary Test

Assistant Professor, Orthodontics and Dentofacial Orthopaedics, Class-I, (Dental College)

(Advt. No. 12/18-19)

Part-II Syllabus of Concerned Subject

(Orthodontics and Dentofacial Orthopaedics)

Medium: English

Questions:200

Marks : 200

1. APPLIED ANATOMY

Prenatal and Postnatal growth of head. Bone growth. Assessment of growth and development. Muscles of mastication. Development of dentition and occlusion. Assessment of skeletal age.

2. PHYSIOLOGY:

Endocrinology and its disorders. Calcium and its metabolism. Nutrition-metabolism and their disorders. Muscle physiology. Craniofacial Biology. Bleeding disorders in orthodontics: Hemophilia.

3. DENTAL MATERIALS:

- **Gypsum products:** dental plaster, dental stone and their properties, setting reaction etc.
- **Impression materials:** impression materials in general and particularly of alginate impression material.
- **Acrylics:** chemistry, composition physical properties.
- **Composites:** Composition types, properties setting reaction.
- **Banding and bonding cements:** Zn (PO₄)₂, zinc silicophosphate, Zinc polycarboxylate, resin cements and glass Ionomer cements
- **Wrought metal alloys:** stainless steel gold, wrought cobalt chromium nickel alloys, alpha & beta titanium alloys.
- **Orthodontic arch wires:** stainless steel gold, wrought cobalt chromium nickel alloys, alpha & beta titanium alloys.
- **Elastics:** Latex and non-latex elastics.

- **Applied physics:** Bioengineering and metallurgy.
- **Specification and test methods:** used for materials used on Orthodontics
- **Survey of all contemporary literature and Recent advances:** in above – mentioned materials.

4. GENETICS

Cell structure, DNA, RNA, protein synthesis, cell division. Chromosomal abnormalities. Principles of orofacial genetics. Genetics in malocclusion. 5 Molecular basis of genetics. Studies related to malocclusion. Recent advances in genetics related to malocclusion. Genetic counseling. Bioethics and relationship to Orthodontic management of patients.

5. PHYSICAL ANTHROPOLOGY AND PATHODOGY

Evolutionary development of dentition. Evolutionary development of jaws. Inflammation. Necrosis.

6. APPLIED PHARMACOLOGY

7. ORTHODONTIC HISTORY

Historical perspective. Evolution of orthodontic appliances. Pencil sketch history of Orthodontic peers. History of Orthodontics in India.

8. CONCEPTS OF OCCLUSION AND ESTHETICS:

Structure and function of all anatomic components of occlusion, Mechanics of articulation, Recording of masticatory function, Diagnosis of Colusa dysfunction, Relationship of TMJ anatomy and pathology and related neuromuscular physiology.

- 9. ETIOLOGY AND CLASSIFICATION OF MALOCCLUSION:**
A comprehensive review of the local and systemic factors in the causation of malocclusion. Various classifications of malocclusion.
- 10. DENTOFACIAL ANOMALIES:**
Anatomical, physiological and pathological characteristics of major groups of developmental defects of the orofacial structures.
- 11. CHILD AND ADULT PSYCHOLOGY**
Stages of child development. Theories of psychological development. Management of child in orthodontic treatment. Management of handicapped child. Motivation and psychological problems related to malocclusion/orthodontics. Adolescent psychology. Behavioral psychology and communication.
- 12. DIAGNOSTIC PROCEDURES AND TREATMENT PLANNING IN ORTHODONTICS**
Emphasis on the process of data gathering, synthesis and translating it into a treatment plan. Problem cases – analysis of cases and its management. Adult cases, handicapped and mentally retarded cases and their special problems. Critique of treated cases.
Cephalometrics: Instrumentation. Image processing. Tracing and analysis of errors and applications. Radiation hygiene. Advanced Cephalometrics techniques. Comprehensive review of literature. Video imaging principles and application.
- 13. PRACTICE MANAGEMENT IN ORTHODONTICS**
Economics and dynamics of solo and group practices. Personal management. Material management. Public relations. Professional relationship. Dental ethics and jurisprudence. Office sterilization procedures. Community based Orthodontics.

14. CLINICAL ORTHODONTICS

My functional Orthodontics: Basic principles, Contemporary appliances – their design and manipulation, Case selection and evaluation of the treatment results, Review of the current literature.

Dent facial Orthopedics: Principles, Biomechanics, Appliance design and manipulation, Review of contemporary literature.

Clef lip and palate rehabilitation: Diagnosis and treatment planning, Mechanotherapy, Special growth problems of cleft cases, Speech physiology, pathology and elements of therapy as applied to orthodontics, Team rehabilitative procedures.

Biology of tooth movement: Principles of tooth movement. Review of contemporary literature. Applied histophysiology of bone, periodontal ligament. Molecular and ultra-cellular consideration in tooth movement.

Orthodontic / Orthographic surgery: Orthodontics role in conjoint diagnosis and treatment planning, Pre and post-surgical Orthodontics, Participation in actual clinical cases, progress evaluation and post retention study, Review of current literature.

Ortho / Perio / Prosthо inter relationship: Principles of interdisciplinary patient treatment. Common problems and their management.

Basic principles of Mechnotherapy includes removable and fixed appliances: Design, Construction, Fabrication, Management, Review of current literature on treatment methods and results.

Applied preventive aspects in Orthodontics: Caries and periodontal disease prevention, Oral hygiene measures, Clinical procedures.

Interceptive Orthodontics: Principles, Growth guidance, Diagnosis and treatment planning, Therapy emphasis on: Dento-facial problems, Tooth material discrepancies and Minor surgery for Orthodontics.

Retention and relapse: Mechanotherapy – special reference to stability of results with various procedures. Post retention analysis. Review of contemporary literature.

15. 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.

16. Current Trends and Recent Advancements in Orthodontics and Dentofacial Oprhopaedics.