

FINAL SYLLABUS FOR Ph.D ENTRANCE EXAMINATION

IN

ORAL & DENTAL HEALTH SCIENCES

UNDER JIS UNIVERSITY

1. BASIC SCIENCES (common to all)

A) ORAL ANATOMY, HISTOLOGY, PHYSIOLOGY & BIOCHEMISTRY

1. Structure of the Oral Tissues
2. General Embryology
3. Embryology of the Head, Face and Oral Cavity
4. Head & Neck Anatomy
5. Cytoskeleton, Cell junctions, Fibroblasts, and Extracellular Matrix
6. Development of the Tooth and Its Supporting Tissues
7. Bone
8. Enamel: Composition, Formation, and Structure
9. Dentin-Pulp Complex
10. Periodontium
11. Physiologic Tooth Movement: Eruption and Shedding
12. Salivary Glands
13. Oral Mucosa
14. Temporomandibular Joint
15. Facial Growth and Development
16. Repair and Regeneration of Oral Tissues

B) DENTAL BIO-MATERIALS

1) General Classes and Properties of Dental Materials

1. Overview of Preventive and Restorative Materials
2. Structure of Matter and Principles of Adhesion

3. Physical and Chemical Properties of Solids
4. Mechanical Properties of Dental Materials
5. Structure and Properties of Cast Dental Alloys
6. Dental Polymers
7. Biocompatibility

II) Auxiliary Dental Materials

8. Impression Materials
9. Gypsum Products
10. Dental Waxes, Casting Investments, and Casting Procedures
11. Materials and Processes for Cutting, Grinding, Finishing, and Polishing

III) Direct Restorative Materials

12. Bonding and Bonding Agents
13. Resin-Based Composites
14. Dental Cements
15. Dental Amalgams

IV) Indirect Restorative Materials

16. Dental Casting Alloys and Metal Joining
17. Wrought Metals
18. Dental Ceramics
19. Prosthetic Polymers and Resins
20. Dental Implants

V) Recent Advances

21. Emerging Dental Bio Materials
22. Emerging Technologies

2. APPLIED SCIENCES (any one of the specialities)

1. Oral And Maxillofacial Pathology
2. Oral And Maxillofacial Surgery
3. Oral Medicine & Radiology

4. Prosthodontics and Crown & Bridge
5. Periodontics
6. Conservative dentistry & Endodontics
7. Orthodontics & Dento-facial Orthopedics
8. Pedodontics & Preventive Dentistry
9. Community & Public Health Dentistry

For kind attention of Prof. A. Sen , JIS University
From Prof. (Dr.) R. R. Paul , GNIDSR