

SYLLABUS FOR Ph.D. ENTRANCE EXAMINATION

ORAL PATHOLOGY AND MICROBIOLOGY

Developmental defects of oral and maxillofacial region and abnormalities of teeth •Dental caries (Introduction, Epidemiology, microbiology, cariogenic bacterial including properties, acid production in plaque, development of lesion, response of dentine – pulpunit, histopathology, root caries, sequelae and immunology).

- Pulpal and Periapical diseases
 - Infections of oral and Para oral regions (bacterial, viral and fungal infections)
 - Non - neoplastic disorders of salivary glands
 - Bone pathology
 - Haematological disorders
 - Physical and chemical injuries, allergic and Immunological diseases. •Cysts of odontogenic origin
 - Dermatologic diseases.
 - Periodontal diseases
 - Oral manifestations of systemic diseases
 - Facial pain and neuromuscular disorders including TMJ disorders •Regressive alterations of teeth
- Clinical Pathology:**

- Laboratory investigations - Hematology, Microbiology and Urine analysis
- Postings to Clinical Pathology for relevant training
- Record book to be maintained-

Specialized Histotechniques And Special Stains:

Special staining techniques for different tissues.

Immunohistochemistry

Preparation of frozen sections and cytological smears **Approach:**

Training to be imparted in the department or in other institutions having the facility Record book to be maintained

RECORDING OF CASE HISTORY AND CLINICO-PATHOLOGICAL DISCUSSIONS:

Approach:

Posting to the department of Oral medicine, Diagnosis and Radiology and Oral and Maxillo-facial surgery. Record of case histories to be maintained

Dermatology:

Study of selected mucocutaneous lesions-etio-pathogenesis, pathology, clinical presentation and diagnosis.

Approach:

- Posting to the Dept of Dermatology of a Medical college
- Topics to be covered as Seminars

- Record of cases seen to be maintained.

ORAL ONCOLOGY:

Detailed study including Pathogenesis, molecular and biochemical changes of various tumors, tumor like lesions and Premalignant lesions affecting the hard and soft tissues of oral and paraoral tissues. Tumour markers Approach:

To be covered as seminars

Posting to a Cancer center to familiarize with the pathological appearances, diagnosis, radio-diagnosis and treatment modalities.

ORAL MICROBIOLOGY AND IMMUNOLOGY:

- Normal Oral microbial flora
 - Defense mechanism of the oral cavity
 - Microbiology and immunology of Dental caries and Periodontal diseases
 - Dental caries (Introduction, epidemiology, microbiology, cariogenic bacteria including properties, acid production in plaque, development of lesion, response of dentin pulp unit, histopathology, root caries, sequelae and immunology)
 - Tumor immunology
 - Infections of Pulp and Periapical and periodontal tissues
 - Oral sepsis and Bacteremia
 - Microbial genetics
 - Infections of oral and Para oral regions (bacterial, viral and fungal infections) Approach:
- To be covered as seminars

FORENSIC ODONTOLOGY:

Legal procedures like inquest, medico-legal evidences post mortem examination of violence around mouth and neck, identification of deceased individual-dental importance.

Bite marks rugae patterns and lip prints.

Approach:

To be covered as seminars

Posting to a Cancer center to familiarize with the pathological appearances, diagnosis, and radio-diagnosis and treatment modalities

HISTOPATHOLOGY – SLIDE DISCUSSION:

Record book to be maintained

Laboratory Techniques And Diagnosis:

- Routine hematological tests and clinical significance of the same
 - Biopsy procedures for oral lesions
 - Processing of tissues for Paraffin sections
 - Microtome and principles of microtomy
 - Routine stains, principles and theories of staining techniques
 - Microscope, principles and theories of microscopy
 - Light microscopy and various other types including electron microscopy
 - Methods of tissue preparation for ground sections, decalcified sections.
 - Special stains and staining techniques for different tissues
 - Immunohistochemistry
 - Preparation of frozen sections and cytological smears
- OTHER TOPICS IN ORAL PATHOLOGY.

- Detailed description of diseases affecting oral mucosa, teeth, supporting tissues & jaws
- Cysts of the oral & Para-oral regions
- Systemic diseases affecting oral cavity.

Approach:

Seminars & Slide discussions. Record notebook to be maintained. Training in histopathology slide reporting.

Experimental Aspects Of Oral Diseases:

Approach:

Posting is desirable in Centers where animal experimentation is carried out to familiarize with laboratory techniques, upkeep & care of experimental animals.

RECENT ADVANCES IN ORAL PATHOLOGY:

Approach:

Update of knowledge in Oral Pathology through study of recent journals