1.3.2 : SYLLABUS (Including Teaching Hours.)

DENTAL ANATOMY

I) Must Know 95 HRS

1) Introduction 04 HRS

Definitions and Nomenclature in Dental Anatomy
Tooth numbering systems
Differences between permanent and deciduous dentition
Definition of elevations and depressions on the tooth
Different Traits

2) Maxillary Incisor 03 HRS
Introduction
Chronology
Crown morphology
Root morphology
Pulp morphology

3) Mandibular Incisor 03 HRS
Introduction
Chronology
Crown morphology
Root morphology
Pulp morphology

4) Maxillary / Mandibular Canine 03 HRS
Introduction
Chronology
Crown morphology
Root morphology
Pulp morphology

5) Maxillary Premolar 03 HRS
Introduction
Chronology
Crown morphology
Root morphology
Pulp morphology

6) Mandibular Premolar 03 HRS
Introduction
Chronology
Crown morphology
Root morphology
Pulp morphology

7) Maxillary molar 03 HRS
Introduction
Chronology
Crown morphology
Root morphology

Pulp morphology

8) Mandibular molar 03 HRS
Introduction
Chronology
Crown morphology
Root morphology
Pulp morphology

9) Occlusion 05 HRS
Development of occlusion
Concepts
Theories
Keys to occlusion
Teeth & jaw associated factors
Occlusion in dentures

10) Morphology of individual deciduous tooth 02 HRS

DENTAL HISTOLOGY

1) Histotechniques 02 HRS
Introduction
Fixation
Tissue processing
Staining
Ground section
Special stains
Clinical implications

2) Development of face and oral cavity(Embryology) 06 HRS
Origin, development and differentiation of facial tissues
Branchial arches
Development of face, Tongue and palate
Development of Mandible ,Maxilla

3) Development of teeth 03 HRS
Dental lamina
Developmental and histophysiological stages of teeth
Development of root

4) Enamel 04 HRS
Introduction
Physical and chemical properties
Structures (Enamel rods, lamellae ,tufts, spindles, Hunter Schreger bands, dentinoenamel junction)
Amelogenesis: Life cycle of ameloblast

5) Dentin 06 HRS
Introduction
Physical and chemical properties
Structures
Dentinogenesis
Types of dentin
Theories of Hypersensitivity
Functions

6) Maxilla and Mandible (alveolar process) 05 HRS
Definition and development
Anatomy
Classification
Types of Ossification
Alveolar bone
Histology of bone
Bone morphogenic protein
Bone Remodeling & factors affecting

7) Eruption and shedding 03 HRS
Theories of eruption
Pre-eruptive,Eruptive and Post-eruptive tooth movement
Definition and Shedding pattern
Histology of shedding
Mechanism of resorption and shedding
Clinical considerations

8) Pulp 04 HRS
Development, Anatomy and Structure
Histology of pulp
Functions

9) Cementum 06 HRS
Introduction
Physical and chemical properties
Structures
Histology & cementogenesis
Types of cementum, cemento-enamel junctions
Functions

10) Maxillary sinus 01 HRS
Definition and development
Anatomy
Functions
Histology

11) Salivary glands 06 HRS
Embryogenesis
Classification
Anatomy of major and minor salivary glands

Histology of major and minor salivary glands
Saliva: Composition,formation and functions of saliva

12) Periodontal ligament 04 HRS
Development & Classification
Histology: cells and fibres
Functions

13) Oral Mucous Membrane(OMM) 12 HRS
Definition and classification of OMM
Types of epithelium
Histology of keratinized and non keratinized epithelium
Non-Keratinocytes
Clinical and histological aspects of buccal mucosa,gingiva, palate, floor of the mouth,vermilion border.
Tongue-clinical and histological aspects of papillae and taste buds
Junctional epithelium

14) Temporomandibular Joint 02 HRS
Anatomy
Development
Histology
Clinical considerations

15) Muscles of Mastication and Deglutition 02 HRS

Desirable to know 12HRS
1- Special stains 03 HRS
-Immuno histochemistry & enzyme histochemistry (suggested) - Applied aspects of Development of face and oral cavity (Embryology) 01 HRS

3-Molecular aspects of tooth genesis Applied aspects of Development of teeth
02 HRS

3- Applied aspects of enamel, dentin, pulp cementum, maxillary sinus, salivary glands, periodontal ligament, oral mucous membrane, temporomandibular joint, muscles of mastication, deglutition. Bone morphogenic protein, Bone Remodelling & factor affecting it, Bone Grafts
08 HRS
4- Applied aspects of eruption and shedding 01HR

1.3.3 EXAMINATION PATTERN

Name of the exercise	Time allotted	Marks
Tooth carving	45 minutes	20

1- Identification of slides (8) : 5 marks each 2- Identification of specimens(4): 5 marks each	40 minutes	60
3. Journal	-	10