Syllabus for the exam Pre-clinics of Pediatric dentistry

ORAL EMBRYOLOGY, HISTOLOGY AND BIOLOGY

Part I

1. Prenatal human development - periods, stages, and processes of development after fertilization.
2. Chronology in the development of the maxillofacial region by weeks.
3. Ossification, lines of fusion and defects in the formation of the maxillofacial region.
4. Tooth germ - physiological stages in the development of teeth.
5. Tooth germ - morphological stages in the development of the enamel organ.
6. Tooth germ - morphological stages in the development of the dental papilla and the dental sac. Functions of the elements of the tooth germ.
7. Histogenesis of the enamel (amelogenesis).
8. Morphology and physiology of enamel.
9. Histogenesis of the dentin (dentinogenesis).
10. Morphology and physiology of dentin.
11. Histogenesis and anatomy of dental pulp.
12. Histomorphology of the dental pulp.
13. Functions and physiology of dental pulp.
14. Histogenesis of dental cementum.
15. Morphology of dental cementum.
16. Composition, physiology, and functions of dental cementum.
17. Histogenesis of the periodontium.
18. Morphology of the periodontium.
19. Functions and ageing of the periodontium.
20. Formation, structure, and remodeling of the alveolar bone.
21. Histogenesis and histomorphology of the oral mucosa.
22. Topographic characteristics of the oral mucosa, structure of the gingiva and specialized mucosa.
23. Functions and physiology of the oral mucosa. Characteristics of oral mucosa in childhood

Part II

24. Dynamics of tooth development – periods and stages of tooth eruption.
25. Theories and patterns of eruption.
26. Tooth root formation - stages. Resorption of primary teeth.
27. Anatomical and physiological features of primary teeth.

28. Anatomical and physiological features of permanent teeth.
29. Anatomical and physiological differences between primary and permanent dentition.
30. Anomalies of tooth development - anomalies in number, size, shape and location of the teeth.
31. Anomalies in tooth structure. Dental dysplasia - risk factors, pathogenesis and classification.
32. Oral biological system and oral ecology - oral resident microflora.
33. Oral ecology - factors of oral bacterial homeostasis.
34. Microbial interactions. Interactions between micro- and macroorganisms.
35. Salivary glands - structure, mechanism and control of salivary secretion.
36. Composition of saliva and gingival crevicular fluid.
37. Physiology of saliva. Role of gingival crevicular fluid in the oral physiology.
38. Immune system - non-specific and specific immunity, immune tolerance.
39. Development of the immune system in childhood. Immunopathological reactions. Oral immunity.
40. Immunopathological reactions in oral diseases.

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