

Syllabus for state exam of Pediatric Dentistry

First part

1. Ontogenetic development of the maxillo-facial area.
2. Tooth germ. Stages of development, elements and function.
3. Amelogenesis, morphology and physiology of the enamel.
4. Dentinogenesis, morphology, composition and physiology of the dentin.
5. Histogenesis, morphology and function of dental pulp.
6. Cementogenesis, morphology, composition and functions of the dental cementum.
7. Histogenesis, morphology and function of periodontal ligaments.
8. Histogenesis, topographic feature, histomorphology, physiology and function, of the oral mucosa and gingiva - characteristics in childhood.
9. Dynamics of tooth development.
10. Tooth root development. Root resorption.
11. Anatomical and physiological characteristics of primary and permanent teeth.
12. Developmental anomalies of teeth – anomalies in the number, shape, size and localization.
13. Dental structure anomalies - dental dysplasia - risk factors, pathogenesis and classification.
14. Saliva – production, types, composition.
15. Physiology and function of the saliva. Gingival crevicular fluid.
16. Oral ecology. Factors of homeostasis.
17. Immune system. Innate and adaptive immunity in oral environment.

Second part

18. Etiology of dental caries.
19. Dental plaque – development and structure.
20. Pathogenesis of dental caries.
21. Demineralization and remineralization of the enamel – mechanisms of action.
22. Microscopic features of the enamel and dentin caries.
23. Modern concepts for prevention of oral diseases - goals, strategies and forms.
24. Oral hygiene.
25. Prevention of dental caries – systemically and topically fluoride intake.
26. Nutritional prevention of dental caries. Control of carbohydrates.
27. Pit and fissure sealants.
28. Remineralization - mechanism and methods.
29. Caries risk assessment - assessment tools, methodologies and interpretation.
30. Risk assessment of periodontal disease and prevention.
31. Oral-health promotion.
32. Prevention of early childhood caries.
33. Preventive oral health programs – public, group, individual. Preventive oral-health care for compromised children.

Third part

34. Oral examination in childhood.
35. Psychological problems in the dental treatment of children.
36. Methods of child behavior management in dental treatment.
37. Clinical characteristics, diagnosis, and carious lesion treatment of primary teeth.
38. Early childhood caries.
39. Dental caries of permanent teeth. Diagnostic scale and threshold. Clinical criteria and advanced methods of caries diagnosis.

40. Preventive non-operative treatment of carious lesions in both dentitions.
41. The micro-invasive approach in carious lesion treatment in both dentitions.
42. Pulpitis of the primary teeth.
43. Apical periodontitis of the primary teeth.
44. Pulpitis of the permanent teeth – new classification, clinical features and diagnostics.
45. Biological pulp treatment of permanent teeth.
46. Endodontic treatment of pulpitis in immature permanent teeth.
47. Apical periodontitis of immature permanent teeth
48. Traumatic dental injuries of the primary dentition.
49. Traumatic dental injuries of the permanent dentition.
50. Dental dysplasia – diagnostics, clinical features and treatment.
51. Etiology, pathogenesis and classification of periodontal disease in children and adolescents.
52. Examination of periodontal health in childhood.
53. Plaque-induced gingivitis in children and adolescents - etiology, pathogenesis, clinic, diagnosis and treatment.
54. Non-plaque-induced gingivitis - etiology, pathogenesis, clinic, diagnosis and treatment.
55. Necrotizing periodontal disease.
56. Periodontitis (marginal) in childhood – clinical features, diagnostics and treatment.
57. Treatment of periodontal diseases in children and adolescents.
58. Oral mucosal lesions in childhood – clinical features and classification of oral mucosal diseases.
59. Etiology and pathogenesis of oral mucosal diseases.
60. Oral herpetic infections in childhood. Primary herpetic gingivostomatitis. Recurrent herpetic infections.
61. Recurrent oral aphthae and aphthosis in childhood.

62. Oral candidosis in childhood.
63. Glossitis and cheilitis in childhood.
64. Oral mucosal lesions in infectious and blood diseases and vitamin deficiencies.
65. Oral mucosal lesions in dermatological diseases and immunodeficiency in childhood.
66. Oral manifestations of genetic diseases and syndromes.
67. Dental treatment of children with systemic diseases and special needs.

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