

CONSERVATIVE DENTISTRY PRECLINICAL SYNOPSIS

ORAL EXAM

1. Anatomy of the cavity form - basic elements.
2. Requirements to the cavity form.
3. General principles of cavity preparation (First principle of caries treatment) – basic factors affecting outline cavity form.
4. General principles of cavity preparation – additional factors affecting outline cavity form.
5. Factors affecting outline cavity form - practical significance for cavity borders determination on each tooth surface.
6. General principles (guidelines) of cavity preparation – creating resistance forms.
7. General principles (guidelines) of cavity preparation – creating retention forms.
8. General principles of cavity preparation - practical significance for initial outline form and carious dentin removal.
9. General principles of cavity preparation - practical significance for enamel margins finishing (beveling).
10. Class I cavity preparation for amalgam restorations – occlusal cavities first type.
11. Class I cavity preparation for amalgam restorations – occlusal cavities second type.
12. Class I cavity preparation for amalgam restorations – foramen coecum (buccal or lingual pit) cavities.
13. Class I cavity preparation for amalgam restorations – occlusobuccal cavities first type.
14. Class I cavity preparation for amalgam restorations – occlusobuccal cavities second type.
15. Class II cavity preparation for amalgam restorations – general characteristics and basic parts of the common form.
16. Class II cavity preparation for amalgam restorations – characteristics and elements of the proximal outline form.
17. Class II cavity preparation for amalgam restorations – characteristics and elements of the occlusal outline form.
18. Class II cavity preparation for amalgam restorations – box-only form.
19. Class II cavity preparation for amalgam restorations – conventional form.
20. Class II cavity preparation for amalgam restorations – conservative form (“slot” preparation).
21. Class II cavity preparation for amalgam restorations – approximo-occluso-buccal (approximo-occluso-lingual) form.
22. Class V cavity preparation for amalgam restorations.
23. Microretentions – characteristics, preparation technique, retention significance and SEM characteristics.
24. Adhesive systems – classification, chemical compounds (composition) and characteristics.
25. Class III cavity preparation for composite resin (tooth-colored) restorations – proximal form.
26. Class III cavity preparation for composite resin (tooth-colored) restorations – linguoproximal form.
27. Class III cavity preparation for composite resin (tooth-colored) restorations – buccoproximal form.
28. Class III cavity preparation for composite resin (tooth-colored) restorations – linguobuccoproximal form.
29. Class IV cavity preparation for composite resin (tooth-colored) restorations – incisoproximal form.

30. Class IV cavity preparation for composite resin (tooth-colored) restorations – incisoproximolingual form.
31. Class IV cavity preparation for composite resin (tooth-colored) restorations – incisoproximobuccolingual form.
32. Class IV cavity preparation for crown fractures of the incisal ridge. Providing retention in clinical conditions.
33. Class I and II cavity preparation for direct composite resin (tooth-colored) restorations – basic rules.
34. Class V preparation for amalgam and composite resin restorations.
35. Parapulpal pins – indications, types of pins and biomechanical problems associated with their insertion.
36. Parapulpal pins – anatomical consideration about application site.
37. Parapulpal pins – instruments and insertion technique.
38. Medicatio cavi dentis (Second principle of cavity treatment) – basic concepts, reasons for medication and goals.
39. Medicatio cavi dentis (Second principle of caries treatment) – medicaments, pharmacodynamics, application errors.
40. Temporary fillings – function, materials, requirements, critical analysis, indications for application.
41. Obturatio cavi dentis (third general principle of caries treatment) – basic concepts. Restorative materials – biological, mechanical and esthetic requirements.
42. Obturatio cavi dentis (third principle of caries treatment) – indications, contraindications and relative contraindications for application of restorative materials. Factors affecting the choice of appropriate material.
43. Obturatio cavi dentis (third principle of caries treatment) – dentine liners. Biomechanical requirements to the materials and critical analysis.
44. Obturatio cavi dentis (third general principle of caries treatment) – insulation bases. Application techniques and basic configurations depending on different kind of base materials.
45. Restoration contours – basic characteristics depending on the tooth crown form. Errors, complications and repair options.
46. Interproximal contacts - basic characteristics depending on the tooth crown form. Errors, complication as a result of uncorrect proximal contacts and contours restoration. Repair options.
47. Amalgam restorations – instruments and application technique.
48. Esthetic restorative materials - instruments and application technique.
49. Cast metal restorations – indications, contraindications and relative contraindications for their application. Specific rules for cavity preparation.
50. Cast metal inlay restorations. Direct (clinical, chairside) method – indications, instruments and technique.
51. Cast metal inlay restorations. Indirect (laboratory) method – indications, instruments and technique.
52. Cast metal restorations – adjustment, cementation and removal of the inlay.
53. Endodontium – definition. Endodontic internal anatomy.
54. General principles of endodontic treatment. Principles of endodontic access.
55. Endodontic access to pulp chamber - cavity preparation and location of orifices.
56. Removal of different kinds endodontic space content (vital or necrotic pulp tissues) – instruments, techniques, errors and complications.
57. Working length determination of the root canal.

58. Chemo-mechanical preparation of the root canals (cleaning and shaping) – endodontic instruments and their ISO standardization.
59. Chemo-mechanical preparation of the root canals – basic guidelines and hand instrument techniques.
60. Chemo-mechanical preparation of the root canals – standard and step-back techniques.
61. Irrigation protocol – intracanal irrigants, guidelines and techniques for application.
62. Obturation of the root canals – requirements to the root canal sealers, instruments and techniques.
63. Lateral condensation – basic concepts, indications, instruments, advantages and disadvantages.
64. Methods and criteria for root canal filling assessment.
65. Root canal sealers – pharmacologic characteristics of their basic ingredients (compounds).
66. Aseptics and antiseptics (sterilization). Protection against acute infectious diseases.
67. Preparation of the operation field and patient for caries treatment and endodontic treatment.
68. Methods for pain control during caries and endodontic treatment – anesthetics and devices for their application.
69. Etiology and pathogenesis of the tooth caries.
70. Examination methods for the hard tooth tissues in cariology.
71. Inflammatory disorders/diseases of the dental pulp – etiology, pathogenesis and classification.
72. Inflammatory diseases of the dental pulp – main clinical signs and symptoms, paramedical investigations.
73. Examination methods and treatment approaches in endodontics – general characteristics.
74. Periodontium – anatomy, histology and physiology. Etiology and pathogenesis of the periodontal diseases.
75. Examination methods in periodontology. Classification of the periodontal diseases.
76. Inflammatory periodontal diseases - main clinical signs and symptoms, paramedical investigations.

Written Examination

1. Dental caries – definition and classification.
2. Dental caries – treatment aspects, indications, contraindications.
3. General principles for the treatment of dental caries by obturation.
4. Cavity configurations. Factors affecting cavity preparation.
5. Initial cavity preparation stage – instruments, general considerations depending of filling material.
6. Gingival wall - requirements for Class II - MO, DO and MOD cavities.
7. Dovetail retention form – indications, internal configuration.
8. Dentin retentions – different types, indications, position, techniques of preparation depending of cavity configuration and filling material.
9. Occlusal outline retention form in molars - indications, internal configuration.
10. Filling materials for treatment of dental caries.
11. Dental amalgam – classification, composition, mechanism of hardening.
12. Dental amalgam – clinical characteristic.
13. General configurations and characteristics of the Class I cavity preparation for amalgam restorations.
14. General configurations of the Class II cavity preparation for amalgam restorations.
15. Composition and types of composite materials.

16. Clinical characteristic of composite materials.
17. General configurations and characteristics of the cavities of Class III and V for composite filling materials.
18. General configurations and characteristics of the cavities of Class IV for composite filling materials.
19. Glassionomer cements – types and mechanism of setting.
20. Glassionomer cements – clinical characteristics and indications.
21. Root canal anatomy of upper molars.
22. Root canal anatomy of lower molars.
23. Characteristics of apical zone – physiological constriction, physiological foramen, apical foramen, anatomical apex, radiographic apex.
24. Endodontic barbed broaches - characteristics and techniques of use.
25. Basic hand endodontic instruments.
26. Hand endodontic instruments - standardization.
27. Root canal preparation – Step-back technique.
28. Lateral condensation – technique of application.
29. Pharmacodynamic effect of Eugenol and ZnO in composition of root canal pastes.
30. Dental caries – radiographic characteristics.
31. Histology of pulp tissue.
32. Physiology of pulp tissue.
33. Pulpal diseases – classification. Basic principals and critical analysis.
34. Pulpitis acuta serosa – clinical characteristic.
35. Pulpitis acuta purulenta – clinical characteristic.
36. Pulpitis chronica – clinical characteristic.
37. Periodontal diseases – basic principals of classification.
38. Chronic periodontitis – radiographic characteristics.