

MEDICAL UNIVERSITY – SOFIA
FACULTY OF DENTAL MEDICINE
DEPARTMENT OF PROSTHETIC DENTAL MEDICINE

EXAMINATION QUESTIONARY

PRECLINICAL

PROSTHETIC DENTAL MEDICINE

2020

1. Prosthetic dental medicine – subject, historic review and development.
2. Orofacial complex. Maxillofacial region and masticatory system. Phylogenetic development of the maxillofacial region and the masticatory system.
3. Ontogenetic development of the maxillofacial region and the masticatory system.
4. Oral cavity. Lips, cheeks, palate, oral mucosa, salivary glands, tongue.
5. Bones of the masticatory system – functional anatomy.
6. Functional anatomy of the temporomandibular joint.
7. Masticatory and mimic muscles – functional anatomy.
8. Teeth – types of dentitions. Tooth parts and tooth composition. Periodontium – composition and function.
9. Tooth eruption and formation of the primary and permanent dentition. Tooth genesis and theories on tooth eruption.
10. Dental arches and functional groups of teeth - classes. Planes and sides for tooth orientation. Numbering systems.
11. Tooth size and general description of teeth - basic anatomic structures.
12. Morphology of permanent incisors.
13. Morphology of permanent canines and premolars.
14. Morphology of permanent molars. Distinguishing marks for permanent teeth.
15. Morphology of primary (deciduous) teeth. Distinguishing marks for primary teeth.
16. Gnathology. Rest vertical dimension - RVD. Occlusion and articulation. Basic positions of the mandible.
17. Border positions of the mandible. Morphologic occlusion. Perfect occlusion.
18. Occlusal morphology and curves.
19. Types of occlusion.
20. Occlusal contacts.
21. Basic functions of the oral cavity and the masticatory system. Digestion.
22. Phonetics and speech. Articulation of sounds and occlusion. Prosthetic treatment and speech.
23. Dental esthetics – characteristics. Prosthetic treatment and esthetics.
24. Biomechanics of masticatory system and periodontium. Masticatory muscle forces – directions and magnitude.
25. Masticatory /occlusal and periodontal/ pressure. Physiology of transferring masticatory pressure.
26. Functional-mechanical equilibrium of the periodontium. Physiologic tolerance and loading limits.
27. Biomechanics of mastication. Physiologic articulation cycles.
28. Biomechanics of mandibular movements – vertical and horizontal movements.

29. Reproducing mandibular movements. Basic theoretical concepts for combined mandibular movements.
30. Mechanical devices for reproducing mandibular movements. Non-adjustable, semi-adjustable and fully-adjustable articulators.
31. Physiologic-functional alterations of the masticatory system. Dental attrition, abrasion and erosion. Evolution of proximal contacts.
32. Periodontal alterations. Clinical root and clinical crown. Alterations related to partial edentulism. Alterations related to temporomandibular joints. Alterations related to maxillofacial muscles.
33. Landmarks for restoration of masticatory system – constant reference points (bioconstants).
34. Methods for functional evaluation of masticatory system. Gnatho-dynamometrics. Static methods.
35. Dynamic functional methods.
36. Speech. Acoustic method. Phonographic and sonographic examination.
37. Technology of dental prostheses. Types of impressions.
38. Impression trays. Choice of impression material and impression technique.
39. Master cast fabrication. One-layer and two-layer dental stone models. Galvanotechnics in master cast fabrication. Duplicating a stone cast - investment cast fabrication.
40. Wax modeling of tooth crowns. Wax addition modeling technique. Wax compounds.
41. Welding, soldering and casting of dental alloys.
42. Contouring, grinding and polishing of dental prostheses.
43. General classification of prosthetic restorations - morphologic, prophylactic, esthetic and functional indices.
44. General classification of artificial crowns.
45. Evaluation of artificial crowns.
46. Partial veneer crowns.
47. Tooth preparation for a complete crown.
48. Complete metal crown. Fabrication technologies.
49. Acrylic resin crown.
50. Ceromeric crown.
51. All-ceramic crown.
52. Combined crowns. Resin veneer crowns - types.
53. Combined crowns. Porcelain fused to metal (PFM, metal-ceramic) crowns.
54. Custom cast post-and-core
55. Prosthetic restorations for partial edentulism. Fixed bridge restorations – components.

56. Retainer - pontic connectors in bridge prostheses. Classification of fixed bridge restorations.
57. Contemporary technologies for fixed bridge restorations."Adapta" system.
58. Contemporary technologies for fixed bridge restorations. Investment model technique. Technology of fixed bridge restorations with resin-bonded retainers - selectively opened partial retainers (SOP) and Maryland retainers.
59. Esthetic veneering of fixed bridge restorations – acrylic resin and porcelain veneer.
60. Construction principles for fixed bridge restorations. Mechanical stability and biologic periodontal support.
61. Construction principles for retainers and pontic design.
62. Fixed partial dentures with cantilevers. Bridge restorations with special retainers.
63. Removable partial dentures – components.
64. Retainers for removable partial dentures – basic functions.
65. Clasps. Basic parts of a clasp. Wrought (bent) wire clasps. Acrylic resin clasps.
66. Clasps. Cast clasps as retainers -“Ney” system.
67. Combined prosthetic restorations – fixed and removable. Special retainers: sliding attachments; precision attachments.
68. Hinge joints. Double crown attachments (telescopic and coneshaped). Milling technique.
69. Bar attachments. Prefabricated cap-post attachments.
70. Classification of removable partial dentures (RPD). Basic purpose in designing RPD. Clinical and laboratory procedures – steps.
71. Designing acrylic resin removable partial dentures with wrought wire clasps. Technological steps.
72. Designing one-piece cast framework partial dentures. Basic guidelines for framework design in distally shortened and interrupted dental arches.
73. Designing one-piece cast framework partial dentures. Static and biodynamic aspects of framework design. Basic principles for designing the body of the partial denture – major connector, denture base, minor connectors and retainers.
74. Technology of one piece cast framework removable partial dentures – technological steps.
75. Technology of immediate removable partial dentures. Other types of RPDs.
76. Basic guidelines for splinting teeth with reduced periodontal support. Classification, general characteristics and technology of prosthetic splints.
77. Basic prosthetic principles for designing splints. Stabilizing teeth with reduced periodontal support. Fixed splints. Removable permanent splints.
78. Prosthetic restorations for completely edentulous patients. Complete denture components. Retention and stability of complete dentures. Biomechanical methods.

79. Retention and stability of complete dentures. Biophysical methods.
80. Technology of complete dentures /1-3 stage/. Impressions, master casts and custom impression trays.
81. Technology of complete dentures /4-6 stage/. Baseplates and occlusal wax rims. Recording of interocclusal relationship. Mounting master casts on an articulator.
82. Selection of artificial teeth. Orthognatic arrangement of teeth for complete dentures after Gysi. Paterson and Gerber methods for arranging artificial teeth for complete dentures.
83. Differing methods for arranging artificial teeth for complete dentures. Cross-bite, prognathic, progenic arrangement.
84. Types of complete dentures.
85. Repairs and relines of removable partial dentures.

Examination in Preclinical Prosthetic Dental Medicine – sources for preparation of students:

1. Yordanov B., J. Kamenova. Preclinics of Prosthetic Dental Medicine. Textbook for international students, 2013, Sofia.
2. Rickne C. Scheid, Gabriella Weiss. Woelfel's Dental Anatomy, 2012, Eighth Edition.
3. Lectures of prof. Yordanov and prof. Kamenova on Preclinical Prosthetic Dental Medicine.