



General dental materials - Exam questions

**Semmelweis University,
Department of Prosthodontics**

1. Requirements for impression materials.
2. Classification of impression materials.
3. Irreversible, rigid impression materials.
4. Reversible rigid impression materials.
5. Irreversible flexible impression materials: alginates.
6. irreversible elastic impression materials: polyethers, polysulphides.
7. Irreversible elastic impression materials: Silicone-based impression materials.
8. Reversible, flexible impression materials.
9. Digital impression taking systems.
10. Model materials.
11. The workflow of model making.
12. Types of models: study cast, opposing arch cast, primary cast, functional cast, repair model, precision situational cast (master cast), working cast (for making metal plates), milling cast.
13. Types of models: sectioned model, removable die systems, gingiva mask.
14. Model making according to the material of the impression.
15. Porcelain, glass, ceramics.
16. Classification of dental ceramics by composition, material structure.
17. Silicate ceramics composition, material structure.
18. Oxide ceramics: composition, material structure.
19. Classification of dental ceramics based on processing technique: powder/liquid systems, conventional production techniques, sintering: metal-ceramic processes.
20. Classification of dental ceramics based on processing technique: powder/liquid systems, traditional manufacturing techniques, sintering: all-ceramic processes.
21. Classification of dental ceramics based on processing technique: powder/liquid systems, split casting/infiltration.
22. Classification of dental ceramics based on processing technique: Millable or pressable glass-based systems.
23. Classification of dental ceramics based on processing technique: CAD/CAM.
24. Rationale for ceramic material selection: clinical parameters to evaluate.
25. Classification of CAD/CAM methods.
26. Digital workflow: Scanning.
27. Digital workflow: CAD.
28. Digital workflow: CAM.
29. Chairside CAD/CAM systems.
30. Additive manufacturing.



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31. Classification of dental polymers.
32. Natural based polymers.
33. Synthetic polymers.
34. Construction of macromolecules.
35. Characteristics of macromolecules.
36. Construction of artificial teeth.
37. The PMMA.
38. Polyamides, polycarbonates.
39. Chemoplastic procedures.
40. Thermoplastic procedures.
41. Polymers for veneering.
42. Autopolymers.
43. Fiber reinforcement polymers.
44. Soft standing polymers.
45. The use of polymers in dentistry.
46. Classification of metals.
47. Physical characteristics of metals.
48. Structures of metals.
49. Cold manufacturing of metals.
50. Investing and casting.
51. Unification of metal parts: soldering and welding.
52. The gold.
53. The titanium.
54. Alloying and ceramic-veneered metal alloys.
55. Metal allergy.
56. General requirements of dental cements.
57. Temporary cements.
58. Zinc phosphate cement and zinc polycarboxylate cement.
59. Glass ionomer cement.
60. Resin cements.