1. Classification and requirements for dental materials.
5. Imbibition and solubility of dental materials.
8. Toughness and brittleness of dental materials.
10. Wear resistance and abrasiveness of dental materials.
12. Thermal analysis of metals and alloys.
13. Phase diagram of solid solution alloys.
15. Noble dental alloys.
17. Factors influencing the electrochemical corrosion in the mouth.
18. Biological considerations of corrosion.
19. Doctor’s role to prevent the corrosion in the mouth.
21. Dental resins for injection molding technique.
22. Types of gypsum modeling materials.
23. Determination of the initial and the final setting time of gypsum.
27. Comparative analysis of the different types of silicone-based impression materials
28. Composition and preparation of C-silicone impression materials.
29. Composition and preparation of A-silicone impression materials.
30. Toxicity of dental cements.
32. Composition and preparation of zinc phosphate cement.
33. Composition and preparation of glass ionomer cements.
34. Composition and preparation of calcium hydroxide cement.
35. Composition and preparation of irreversible hydrocolloid impression materials.
37. Advantages and disadvantages of dental composites.
40. Dental amalgams.

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