

# Question Paper

Exam Date & Time: 15-SEP-2022 (02:15 PM - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND BDS DEGREE EXAMINATION - SEPTEMBER 2022

**SUBJECT: DENTAL MATERIALS**  
(REGULAR BATCH)

**Marks: 60**

**Duration: 165 mins.**

**Answer all the questions.**

1. Describe the composition of heat activated acrylic denture base resins. Illustrate the physical stages of interaction between the powder and liquid of heat cure acrylic denture base resins. Discuss the curing cycle regimens to be followed to obtain porous free dentures. (2+5+3 = 10 marks)
  
2. Enumerate the advantages of using dental ceramics as restorative materials. Explain in detail about various methods used for strengthening of dental ceramics. (1+9 = 10 marks)
  
3. **Write short notes on:**
  - 3A. Coefficient of thermal expansion. (4)
  - 3B. Measurement of biocompatibility of dental materials. (4)
  - 3C. Microhardness testing methods. (4)
  - 3D. Measurement of setting times of gypsum products. (4)
  - 3E. Composition and setting reaction of addition polysilicone impression material. (4)
  - 3F. Fillers used in dental composites. (4)
  - 3G. Composition and manipulation of zinc phosphate cement. (4)
  - 3H. Sprue former. (4)
  - 3I. Softening and hardening heat treatment of gold alloys. (4)
  - 3J. Investment soldering technique and its technical considerations. (4)

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