

[KI 654]

Sub. Code : 4133

SECTION B — (8 × 5 = 40 marks)

FIRST B.D.S. DEGREE EXAMINATION.

(Modified Regulations)

Paper III — MATERIALS USED IN DENTISTRY

Time : Three hours                      Maximum : 100 marks

Two and a half hours            Sec. A and Sec. B : 70 marks  
for Sec. A and Sec. B                      Section C : 30 marks

Answer Sections A and B in the same answer book.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

1. Describe the ideal requirements of denture-base materials. Explain the chemical stages of polymerisation and the curing cycles of heat cure acrylics.
2. Mention the various casting defects. Explain the causes and remedies for solidification shrinkage porosities and incomplete castings.

3. Write short notes on :

- (a) Thermal expansion.
- (b) Normal and hygroscopic setting expansions.
- (c) Polysulphides.
- (d) Mercury health hazards.
- (e) Microfilled VLC composite resins.
- (f) Implant materials
- (g) Phosphate bonded investments.
- (h) Metal – Ceramics.

OCTOBER - 2003

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FIRST B.D.S. DEGREE EXAMINATION.

(Modified Regulations)

Paper III — MATERIALS USED IN DENTISTRY

Time : Three hours      Maximum : 100 marks

Two hours and forty minutes  
for Sec. A and Sec. B      Sec. A & Sec. B : 80 marks

Twenty minutes for Sec. C      Section C : 20 marks

Answer Sections A and B in the SAME Answer Book.

Answer Section C in the Answer Sheet provided.

SECTION A — (2 × 15 = 30 marks)

1. Identify the different gypsum products with reference to their properties and setting characteristics.
2. Mention the various types of Dental waxes. Describe in detail the ideal requirements, composition and properties of inlay casting waxes.

SECTION B — (10 × 5 = 50 marks)

3. Write short notes on :

- (a) Adhesive bonding
- (b) Strain hardening
- (c) Hardness tests
- (d) Corrosion
- (e) Ideal requirements of Impression materials
- (f) Electro formed die
- (g) Dental bur design
- (h) Porosity in acrylic resin
- (i) Trituration
- (j) Selection of sprue former.