

**Second Year BDS Degree Regular/Supplementary Examinations  
April 2024**

**Dental Materials  
(2016 Scheme)**

**Time: 3 hrs**

**Max Marks: 70**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw Diagrams wherever necessary*
- *Write section A and section B in separate answer books (32 pages). Do not mix up questions from section A and section B*

**Q P Code: 214002**

**Section A – Prosthodontics**

**Marks: 35**

**Essay**

**(10)**

1. List desirable qualities of impression materials. Write in detail about composition, manipulation and uses of zinc–oxide eugenol impression material (4+2+2+2)

**Short Notes**

**(2x5=10)**

2. Discuss stress and strain mechanical properties of dental materials
3. Chemical and physical stages in the polymerization reaction of acrylic resin

**Answer Briefly**

**(5x3=15)**

4. 18 – 8 stainless steel
5. Methods of measuring setting time of plaster of Paris
6. Dental Implant materials
7. Balanced stone
8. Use of base metal alloys

**Q P Code: 215002**

**Section B – Conservative Dentistry**

**Marks: 35**

**Essay**

**(10)**

1. Classify alloys used for dental amalgam. Discuss in detail the properties and setting reaction of high copper amalgam

**Short Notes**

**(2x5=10)**

2. Composition of composite resins
3. Biocompatibility tests of dental materials

**Answer Briefly**

**(5x3=15)**

4. Configuration factor (C- factor)
5. Metal modified glass ionomer cement
6. Rheology of inlay wax
7. Elastic modulus
8. Frozen slab technique

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