

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM  
(Deemed to be University)**

**BDS DEGREE EXAMINATION – July 2021**

**Second Year**

**DENTAL MATERIALS**

**SECTION A**

**Time: Twenty Minutes**

**Maximum: 20 marks**

**Register Number :**

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**Signature of the candidate**

**Signature of the Invigilator**

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**Instructions to the candidates**

- 1. Write your Register Number and sign at the place specified on the first page of this Question Booklet.**
- 2. Do not open this question booklet until Invigilator announces the commencement of the examination.**
- 3. Answer ALL the Twenty questions. They carry equal marks. No negative marking for wrong answers.**
- 4. Answers should be marked legibly in the SHEET provided in capital letters.**
- 5. THE QUESTION BOOKLET SHOULD NOT BE TAKEN OUT OF THE EXAMINATION HALL.**
- 6. Questions should not be copied and taken out of the Examination Hall. Any one found violating this rule shall not be permitted to write the examination and shall be sent out of the Hall.**
- 7. At the end of 20 minutes, when the Invigilator announces 'STOP WRITING' you must stop writing immediately. If the candidate tries to attempt to answer the questions after the prescribed time, their answer script becomes invalid.**
- 8. Hand over the questions booklet containing answer sheet to the invigilator when you finish answering or immediately after 20 minutes.**

**DENTAL MATERIALS**  
**SECTION-A (20X1=20 MARKS)**  
(Multiple choice questions)

Time: Twenty Minutes

Maximum: 20 marks

Select the most appropriate answer and answer in the answer sheet attached:

1. The commonly used acid for enamel etching is
  - A. EDTA 4%
  - B. Citric acid 2%
  - C. Phosphoric acid 37%
  - D. Malic acid 30%
  
2. The particle size in micro filled composites is
  - A. 0.02 to 0.04mm
  - B. 0.5 to 1.0 microns
  - C. 0.01 to 0.1 microns
  - D. 0.3 to 0.4mm
  
3. If visible light is used, photo initiator in composites is
  - A. Toludine
  - B. Benzoyl methyl ether
  - C. Camphoroquinone
  - D. BIS phenol - A
  
4. Which component of zinc oxide eugenol cement gives its strength
  - A. Rosin
  - B. Zinc oxide
  - C. Zinc acetate
  - D. Oil of clove
  
5. Ph of a fully set zinc phosphate
  - A. 3-4
  - B. 4-5
  - C. 6-7
  - D. 7-8
  
6. Dycal is a trade name of
  - A. Zoe cement
  - B. Calcium hydroxide
  - C. Zinc phosphate
  - D. Glass ionomer

(p.t.o.)

(Sl.No. M2285)

7. In amalgam alloy which acts as oxygen scavenger
  - A. Cu
  - B. Zn
  - C. Pt
  - D. Ag
  
8. Which of the following type of glass ionomer is used for restoration
  - A. Type I
  - B. Type II
  - C. Type III
  - D. Type IV
  
9. The purpose of burnishing the amalgam after condensation is to
  - A. Reduce surface micro porosities plaque accumulation
  - B. Smoothen the surface
  - C. Improves the marginal seal of the restoration
  - D. All of the above
  
10. Electroalloy is an alloy of
  - A. Gold and Platinum
  - B. Cobalt and Chromium
  - C. Gold and Calcium
  - D. Tin and Chromium
  
11. Metal with the property of cold welding is
  - A. Silver
  - B. Platinum
  - C. Zinc
  - D. Gold
  
12. Which of the following is used as / for grit blasting of base metal alloys?
  - A. Tripoli
  - B. Rouge
  - C. Emery
  - D. Aluminium Oxide
  
13. Duration of bench curing is
  - A. 20 minutes
  - B. 30 minutes
  - C. 90 minutes
  - D. 120 minutes

(p.t.o.)

(Sl.No. M2285)

14. Quartz in investment material is added for
- A. Strength
  - B. Decrease Strength
  - C. Expansion components for casting shrinkage
  - D. Contraction
15. Boxing wax is also called as
- A. Carding wax
  - B. Utility wax
  - C. Inlay wax
  - D. Sticky wax
16. Reduction in the fusion temperature of dental gold casting alloys is caused by presence of
- A. Platinum
  - B. Copper
  - C. Silver
  - D. Gold
17. Which of the following wires exhibit shape memory phenomenon
- A. Stainless steel wire
  - B. Elgiloy
  - C. Nitinol
  - D. TMA
18. Which of the following types of alloys has only single phase in both liquid and solid state?
- A. Solid solution
  - B. Eutectic alloy
  - C. Peritectic alloy
  - D. Liquids
19. Inelastic impression material is
- A. Impression plaster
  - B. Alginate
  - C. Agar Agar
  - D. Polyether
20. Type I gypsum product is also called
- A. Impression plaster
  - B. Hydrocl
  - C. Densite
  - D. Model Plaster

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**DENTAL MATERIALS**

Time : Three hours

Maximum : 70 marks

Answer ALL Questions

Answer Section A in the Answer Sheet attached to it 20 marks – 20 minutes to be handed over to the invigilator immediately after 20 minutes

Answer Section B& C in the same answer book

Time: 2 hours 40 minutes

**SECTION – B& C**

Maximum: 50 marks

**SECTION – B**

I. Write an Essay on : (1 x 10 = 10)

1. Classify dental cements. Discuss about ideal requirements of dental cements. Add a brief note on cavity liners and cavity bases.

II. Write short notes on : (3 x 5= 15)

2. Dentine bonding agents
3. Frozen glass technique
4. Gold foil

**SECTION – C**

III. Write an Essay on: (1 x 10 = 10)

5. Classify Elastomeric impression materials. Write in detail about addition silicone.

IV. Write short notes on : (3 x 5= 15)

6. Polymerization cycles
7. Sprue
8. Implant biomaterials

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