

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

**BDS DEGREE EXAMINATION – February 2020
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

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. Ammonia treated gold foil is also known as
 - A. Cohesive foil
 - B. Non cohesive foil
 - C. Corrugated foil
 - D. Non corrugated foil

2. Stress in cold working can be relieved by
 - A. Age hardening
 - B. Annealing
 - C. Hydrochloric acid
 - D. Beating

3. The objective of pulp capping is to
 - A. Preserve the vitality of entire pulp
 - B. Preserve the vitality of radicular pulp
 - C. Preserve the vitality of coronal pulp
 - D. Regenerate a necrotic pulp.

4. Cavity varnish is indicated under amalgam restorations because it:
 - A. Is an effective thermal insulator
 - B. Prevents galvanic currents from reaching the pulp
 - C. Improves the marginal seal
 - D. None

5. Which of the following is contraindicated beneath composite resins as liner/ base
 - A. Calcium hydroxide
 - B. Zinc oxide eugenol
 - C. Glass ionomer
 - D. None

6. Recommended time for acid etching before placing pit and fissure sealant
 - A. 30 Seconds
 - B. 60Seconds
 - C. 90 Seconds
 - D. 120 Seconds

(p.t.o.)

7. The main difference between composite and Amalgam is:

- A. Occlusal wear
- B. Durability
- C. Retention
- D. Manipulation

8. Acid etching of composite resin is done with:

- A. 10% Sulphuric acid
- B. 30% Sulphuric acid
- C. 33% Phosphoric acid
- D. 33% Hydrochloric acid

9. The most commonly used type of gold is:

- A. Type I
- B. Type II
- C. Type III
- D. Type IV

10. Corrosion of amalgam restorations occurs by:

- A. Oxygen
- B. Chlorides
- C. Sulphur
- D. Mercury

11. Which of the following component of alginate impression material may be a possible health hazard:

- A. Silica
- B. Alginic acid
- C. Triethanol
- D. Anise.

12. Which of the following material has longest shelf life:

- A. Silicone
- B. Polyether
- C. Polysulfide
- D. Reversible hydrocolloid

13 The initiator in BIS-GMA resins is:

- A. Tertiary amine
- B. Peroxide
- C. Hydroquinone
- D. Methyl ether

14. Dicor is a ceramic with:

- A. Excellent strength
- B. Good aesthetics
- C. Castable property
- D. None

15. The resistance of inlay wax to cracking is due to:

- A. Dammar resin
- B. Carnauba wax
- C. Ceresin
- D. Ivory wax

16. Correct angulation of sprue at wax pattern prevents:

- A. Porosity
- B. Turbulence of metal
- C. Localized shrinkage porosity
- D. None

17. The anti-flux used for gold solders is:

- A. Graphite
- B. Cryolite
- C. Titanium
- D. Silicon

18. Modulus of elasticity indicates:

- A. Rigidity
- B. Impact force
- C. Breaking strength
- D. Malleability

19. Metal that does not provide protection against corrosion is:

- A. Aluminium
- B. Titanium
- C. Copper
- D. Palladium

20. In soldering the gas yielding highest temperature is:

- A. Hydrogen
- B. Oxygen
- C. Acetylene
- D. Natural gas

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BDS DEGREE EXAMINATION – February 2020

Second Year

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 denture base resins? Describe the composition, manipulation and properties of heat activated denture base resins.

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

2. Bio-compatibility in dental materials.

3. Polyvinyl siloxane impression material.

4. Classify ceramics? Write about CAD CAM.

SECTION – C

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

5. Describe the high copper silver amalgam alloy, explain amalgamation, microstructure and their advantages.

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

6. Metal modified GIC

7. Flux and Anti Flux

8. Flowable composites
