



MK-21301

Seat No. _____

Second Year B. D. S. Examination

January – 2018

Dental Materials

Time : **3** Hours]

[Total Marks : **70**

- Instructions :**
- (1) Write each section in separate answer book.
 - (2) Draw figure whenever necessary.
 - (3) Figure on right indicates marks.
 - (4) Attend all the questions.

SECTION - I

- 1** Full question : **10**
Give the ideal requirements of Impression materials. Classify impression materials and add a note on Irreversible hydrocolloid impression material.

OR

Full question :
Discuss in detail about strength of Amalgam and factors affecting it. What technical consideration will you have when using Silver Amalgam ?

- 2** Answer in brief : (any **five**) **10**
- (a) Types gypsum products
 - (b) Define Modulus of elasticity
 - (c) What is syneresis n imbibition?
 - (d) What is chelation?
 - (e) Composition of calcium hydroxide cements.
 - (f) Define Flux and Anti flux.

- 3** Write short notes : (any **five**) **15**
- (a) Investment materials.
 - (b) Abrasive and polishing agents.
 - (c) Describe cavity liners and bases.
 - (d) Acid etch technique
 - (e) A-silicone impression materials.
 - (f) Separating media.

SECTION - II

- 4** Full question : **10**
- Give the composition and biological properties of Glass Ionomer cement. Explain its bonding action to tooth enamel and dentin. Add note on recent modifications of GIC.

OR

Full question :

Describe the causes for various defects occurring during fabrication of Heat cure acrylic dentures and the methods to minimize them.

- 5** Answer : (any **two**) **10**
- (a) Hygroscopic expansion
 - (b) Casting defects
 - (c) Mercury hazards
- 6** Answer in brief : (any **five**) **15**
- (a) Composition n condensation of Porcelain.
 - (b) Inlay wax.
 - (c) Difference between Impression compound n ZnO eugenol Paste.
 - (d) Classify dental alloys.
 - (e) Chemical stages of polymerization.
 - (f) Pit n fissure sealants.