

PAPER CODE: BD153

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BDS SECOND YEAR DEGREE SUPPLEMENTARY EXAMINATIONS: APRIL, 2025

DENTAL MATERIALS

Time: 3 Hours

Max Marks: 70

Note: Answer all questions

Give Diagrammatic representation wherever necessary with Black Ball point pen/ HB Pencil / any dark colour Pencil.

Write an essay on the following:

2 X 9= 18

1. Classify ceramics. Explain composition of feldspathic porcelain. Add a note on different types of All-Ceramic materials. (3+3+3)
2. Classify investments. Explain composition of phosphate bonded investment. Add a note on sprue design. (2+4+3)

Write short note on the following:

8 X 4 =32

3. Localised shrinkage porosity.
4. Inlay casting wax.
5. Viscoelasticity of hydrocolloids.
6. Modifiers of gypsum.
7. Condensation silicone.
8. Grain modifiers in casting alloy.
9. Stages of polymerisation of PMMA.
10. Materials used in Dental Implants.

Write briefly on the following:

10 X 2 =20

11. Glass transition temperature of impression compound.
12. Manipulation of ZnPO₄ cement.
13. Type III gypsum.
14. Glazing.
15. Smear layer.
16. Nano filled composite.
17. Rockwell hardness test.
18. Casting ring liner.
19. Accelerators for ZOE impression paste.
20. Bonding of adhesive cement.
