421-NF DR. NTR UNIVERSITY OF HEALTH SCIENCES::AP::VUAYAWADA-520 008 B.D.S. DEGREE EXAMINATION JANUARY, 2017 FIRST BDS EXAMINATION(OR) SECOND BDS EXAMINATION(OR) DENTAL MATERIALS Time : 3 Hours Max. Marks: Note: Answer all questions. Draw neat labeled diagrams wherever necessary. 1) Discuss in detail composition, classification and 2+2+3+2=9 properties of Porcelain. Add a note on CAD CAM ceramics. 2) Define tarnish and corrosion. Explain causes and types 2+3+4=9 of corrosion. <i>WRITE SHORT NOTES ON:</i> 8x4=32 3) Evaluation tests for biocompatibility of dental materials. 4) Failure of Hydrocolloid impressions 5) Eillors in composite rosin	
FIRST BDS EXAMINATION(OR) SECOND BDS EXAMINATION(NR) DENTAL MATERIALS         Max. Marks:       Max. Marks:         Note: Answer all questions. Draw neat labeled diagrams wherever necessary.       Max. Marks:         1)       Discuss in detail composition, classification and 2+2+3+2=9 properties of Porcelain. Add a note on CAD CAM ceramics.       2+2+3+2=9         2)       Define tarnish and corrosion. Explain causes and types of corrosion.       2+3+4=9         WRITE SHORT NOTES ON:       8x4=32         3)       Evaluation tests for biocompatibility of dental materials.       8x4=32         4)       Failure of Hydrocolloid impressions       5)	R/402-OR
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<ul> <li>4) Failure of Hydrocolloid impressions</li> <li>5) Fillers in composite rosin</li> </ul>	
5) Fillors in composito rosin	
6) Classify direct filling gold	
7) Hygroscopic setting expansion	
8) Phosphate bonded investments	
$10)  \beta = \text{Titanium Allows}$	
WRITE BRIEFLY ON:  10x2=20	
11) Calcium Hydroxide	
12) Contact angle	
13) Sprue Former	
14) Advantages of Glass lonomers	
16) Three body abrasion	
17) Varnish	
18) Delayed expansion	
19) Co polymer	
20) Smear layer	

		421-NR/402-0
	DR. NTR UNIVERSITY OF HEALTH SCIENCES::AP::VIJAYAWA B.D.S. DEGREE EXAMINATION JUNE/JULY, 2016 FIRST BDS EXAMINATION(OR) SECOND BDS EXAMINATION DENTAL MATERIALS	DA-520 008 N(NR)
Ti ote: Aı Dr	me : 3 Hours nswer all questions. raw neat labeled diagrams wherever necessary.	Max. Marks: 70
1)	Classify impression materials. Describe the composition, gelation reaction and properties of irreversible hydrocolloids.	3+2+2+2 <mark>=9</mark>
2)	What are dental composites? Write in detail about the composition and properties of hybrid composite resins.	1+5+3=9
	WRITE SHORT NOTES ON:	8x4=32
3)	Bonding Agents	
4)	Gold Foil	
5)	Curing cycles of heat cure acrylic denture base resins	
6)	Dentifrices	
7)	High copper amalgam alloys	
8)	Incomplete casting	
9)	Micro hardness testing methods	
10)	Type III dental gypsum product	
	WRITE BRIEFLY ON:	10x2=20
11)	Classification of dental casting alloys	
12)	Composition of Zinc Oxide Eugenol Impression Pastes	
13)	Ductility and Malleability	
14)	Contact angle of wetting	
15)	Die materials	
16)	Rouge	
17)	Manipulation of Zinc Phosphate Cement	
18)	Metamerism	
19)	Titanium implant material	

	LENORA INSTITUTE OF DENTAL SCIEN	NCES 402OR/421NR
	B.D.S. DEGREE EXAMINATION JANUARY, FIRST BDS EXAMINATION(OR) SECOND BDS EXAM DENTAL MATERIALS	AYAWADA :: AP 2016 1INATION(NR)
	Time : 3 Hours	Max. Marks: 70
Note: A	Draw neat labeled diagrams wherever necessary.	
1)	and explain different methods of measuring setting	2+3+2+2=9
	time. Add a note on theories of setting time and	
	disinfection of Gypsum products.	
2)	Name the various anterior esthetic restorative	2+2+2+1+2
	materials used, write the composition, properties	=9
	note on sandwich technique.	
3)	<u>WRITE SHORT NOTES ON:</u> Bit and Eissure sealant	8x4=32
4)	Composition and manipulation of inlay wax	
5)	Compare wrought and cast alloys	
6)	Back pressure porosity	
7)	18-8 stainless steel	
8)	Dental solders	
9)	Microfilled composite resin	
10)	Calcium Hydroxide cement	
	WRITE BRIEFLY ON:	10x2=20
11)	Cavity varnish	
12)	Coupling agent	
13)	Sprue former	
14)	Flux	
15)	Trituration	
16)	Strengthening of Dental Porcelain	
17)	Gutta percha	
18)	Tray Adhesive	
19)	Tarnish and Corrosion	
20)	Denture relining	

	LENORA INSTITUTE OF DENTAL SCIENCI	ES
		402OR/421NR
	DR. NTR UNIVERSITY OF HEALTH SCIENCES::AP::VIJAYAWA B.D.S. DEGREE EXAMINATION JUNE/JULY, 2015 FIRST BDS EXAMINATION(OR) SECOND BDS EXAMINATION DENTAL MATERIALS	DA-520 008 N(NR)
Ti Noto: A	me : 3 Hours	Max. Marks: 70
Note: A	raw neat labeled diagrams wherever necessary.	
1)	Classify dental ceramics. Write the composition of dental	3+2+2+2=9
	porcelain. Discuss the methods of condensation of dental	
	porcelain and uses of porcelain.	
2)	Write the composition properties advantages and	2+2+1+1+3-0
2)	disadvantages of amalgam allovs Add a note on classification	
	of amalgam alloys	
	WRITE SHORT NOTES ON:	8x4=32
3)	Zinc oxide Eugenol impression paste	
4)	Syneresis and Imbibition	
5)	Gold Foil	
6)	Light cure composites	
7)	Dustless alginate	
8)	Zinc phosphate cement	
9)	Soldering and Welding	
10)	Dental implant materials	
	<u>WRITE BRIEFLY ON:</u>	10x2=20
11)	Chemical adhesion	
12)	Pumice	
13)	Inlay Wax	
14)	Localised shrinkage porosity	
15)	Die materials	
16)	Rake angie	
17)	Sandwich Technique	
18)	Etching	
19)	Rouge	
20)	Creep	

	LENORA INSTITUTE OF DENTAL SCIEN	ICES
	B.D.S. DEGREE EXAMINATION - JANUARY FIRST BDS EXAMINATION(OR) SECOND BDS EXAM DENTAL MATERIAL S	402OR/421NR 2015 INATION(NR)
Note:	Time : 3 Hours Answer all questions. Draw neat labeled diagrams wherever necessary.	Max. Marks: 70
1)	Classify waxes used in Dentistry. Describe the composition, manipulation and uses of Inlay wax.	3+2+2+2=9
2)	State the ideal requisites of luting cements. Give the composition, chemistry of setting and properties of glass ionomer cements.	2+2+2+3=9
3)	<u>WRITE SHORT NOTES ON:</u> Addition poly silicone impression material	8x4=32
4)	Delayed expansion	
5)	Ductility and Malleability	
6)	Factors affecting cutting efficiency of dental burs	
7)	Hybrid composite resins	
8)	Ni – Ti orthodontic wire	
9)	Sprue former	
10)	Tissue conditioners	
	WRITE BRIEFLY ON:	10x2=20
11)	Advantages of Gypsum bonded investment	
	materials	
12)	Eames Technique	
13)	Colour parameters	
14)	Composition of impression compound	
15)	Diamond abrasives	
16)	Functions of separating medium	
17)	Non cohesive gold	
18)	Porcelain condensation techniques	
19)	Soldering flux	
20)	Stages of annealing heat treatment	

	LENORA INSTITUTE OF DENTAL SCIEN	CES	402OR/421NR
	B.D.S. DEGREE EXAMINATION JUNE, 201	4	
	FIRST BDS EXAMINATION(OR) SECOND BDS EXAMI	NATION(NR)	
		,	
	DENTAL MATERIALS		
	Time : 3 Hours	Max. Marks	s: 70
Note: A	Answer all questions.		
I	Draw neat labeled diagrams wherever necessary.		
1)	Describe the composition, stages of mixing and curing cycles of heat cure acrylic denture base resins.	3+3+3=9	
2)	Classify gypsum materials. Discuss in detail dental stone.	3+6=9	
3) 4) 5) 6) 7) 8) 9)	<u>WRITE SHORT NOTES ON:</u> Acid etching technique Castable glass ceramics Manipulation of reversible hydrocolloids Zinc phosphate cement Metal modified glass ionomer cements Modulus of elasticity Casting shrinkage	8x4=32	
10)	WRITE BRIEFLY ON:	10x2=20	
11) 12) 13) 14) 15) 16)	Baseplate wax Composition of polyether impression material Desorption of DFG (Direct Filling Gold) Distinguish between abrasion and polishing Galvanic corrosion Trituration		
17)	Polyacrylic acid		
18)	Requirements of dental solders		
19)	Types of copolymers		
20)	Rouge		

	LENORA INSTITUTE OF DENTAL SCIEN	NCES 402OR/421NR
	B.D.S. DEGREE EXAMINATION JANUARY, FIRST BDS EXAMINATION(OR) SECOND BDS EXAM DENTAL MATERIALS	2014 IINATION(NR)
	Time : 3 Hours	Max. Marks: 70
Note:	Answer all questions.	
	Draw neat labeled diagrams wherever necessary.	
1)	Classify silver alloys; discuss composition, properties, advantages and disadvantages of Hi copper alloys.	3+2+2+1+1 =9
2)	Classify dental ceramics. Write the composition and the mechanism of bonding porcelain to metal.	4+2+3=9
	WRITE SHORT NOTES ON	8x4=32
3)	Osseointegration	
4)	Hybrid composites	
5)́	Phosphate-Bonded investments	
6)	Dental waxes	
7)	Glass ionomer cement	
8)	Dimensions of colour	
9)	Alginate impression material	
10)	Stainless steels	10-0.00
	<u>WRITE BRIEFLY ON:</u>	10x2=20
11)	Stress and strain	
12)	Tissue conditioners	
13)	Stages of polymerization	
14)	Base	
15)	Types of setting expansion	
16)	Corrosion	
17)	Fluxes	
18)	Casting ring liners	
19)	Separating media	
20)	Rake angle	

	LENORA INSTITUTE OF DENTAL SCIEN	ICES 4020R/421NR
	B.D.S. DEGREE EXAMINATION JUNE, 20 FIRST BDS EXAMINATION(OR) SECOND BDS EXAM DENTAL MATERIALS	13 INATION(NR)
Note:	Time : 3 Hours Answer all questions. Draw neat labeled diagrams wherever necessary.	Max. Marks: 70
1)	Classify dental impression materials. Write the composition and setting mechanism of reversible hydrocolloids.	9
2)	Classify dental cements. Write the composition, setting reactions and properties of zinc polycarboxylate cements	3+2+2+2=9
3)	<u>WRITE SHORT NOTES ON</u> : Toxicity tests	8x4=32
4)	Bonding agents	
5)	Casting defects.	
6)	Abrasives and polishing agents	
7)	Methods of strengthening ceramics	
8)	Cavity liners and bases	
9)	Factors affecting success of amalgam restorations	
10)	Hygroscopic setting expression	
	WRITE BRIEFLY ON:	10x2=20
11)	Creep and flow	
, 12)	Soft liners	
, 13)	Internal porosity of denture base	
14)	Yield strength	
15)	Dental plaster	
16)	Tarnish	
17)	Forms of direct filling gold	
18)	Divestment	
19)	Dental burs	
20)	Implant materials	

LENORA INSTITUTE OF DENTAL SCIENCES 402OR/421NR-FIRST B.D.S. DEG.EXAM-DECEMBER, 2012- (OR) SECOND BDS EXAM-(NR) DENTAL MATERIALS-Time : 3 Hours-Max. Marks: 70-Answer all questions-Draw neat labeled diagrams wherever necessary. 1..Discuss in detail the composition, setting reaction, properties and uses of Alginate impression materials3+2+2+2=9m 2...Classify composite resins. Write the composition, properties and uses of hybrid composites3+2+2+2=9m Write Short Notes On: 8 x 4=32m 3. Biocompatibility 4. Diffusion 5. Gypsum-Bonded investments 6. Physical stages of Polymerization 7. Castable ceramics 8. Glass Ionomer Cement 9. Types of silver alloys 10. Soldering and Welding Write Briefly On: 10 x 2=20m 11.Dimensions of color 12.Etching 13.Zones of Flame 14.Proportional Limit 15.Dental Stone 16.Cavity Varnishes 17.Pit and Fissure sealants 18.Karat and fineness 19. Types of casting machines 20.Sandwich Technique 421NR-SECOND B.D.S. DEGREE EXAMINATION – JUNE, 2012-DENTAL MATERIALS 1..Classify Dental Cements. Discuss the Composition, setting reaction and uses of zinc phosphate Cement=9m 2...Classify Investment Materials. Discuss in Brief about Gypsum Bonded Investment Material=9m Write short notes on: 3..Polycarboxylate Cement 4..Admixed Alloys. 5..Casting Shrinkage 6..Impression Compound 7...Advantage of Acrylic Resin as a Denture Base Material 8..Condensation and Firing of Porcelain 9...Hygroscopic setting expansion 10.Flow and Creep Write briefly on: 11.Annealing12.Gutta percha13.Dental Implant Materials14. Rouge15.Flux16. Powdered Gold17.Galvanism18. Gama – 2 Phase19. Epoxy Resin Dies20.Percolation. 421/402-1<sup>st</sup> / 2<sup>nd</sup> B.D.S. DEGREE EXAMINATION – DECEMBER,2011/JANUARY, 2012 1...What is biocompatibility? Describe the biological considerations of dental materials=2+7=9m 2...Discuss in detail the composition, properties, setting reaction, advantages and disadvantages of Glass Ionomer Cements=2+2+2+2+1=9mWrite Short Notes On: 8 x 4=32m 3..High Fusing alloys. 4..Alginate impression material. 5..Composition of Ceramics. 6. Trituration. 7..Cobalt Chromium Alloys. 8. Degassing and compaction procedures in Direct Filling Gold. 9. Physical stages of polymerization. 10. 18/8 stainless steel. Write Briefly On:1-0 x 2=20m 14. Hue, Value and Chroma. 11. Die materials. 12. Sticky Wax. 13. Zones of flame. 15. Delayed expansion. 16. Pickling. 17. Calcium Hydroxide. 18. Carat and Fineness. 19. Advantages of EBA cements. 20. Ductility and Malleability. 421/402-FIRST B.D.S. DEGREE EXAMINATION - JUNE, 2011-DENTAL MATERIALS-OR( First 1..Classify composite Resins and describe in detail the composition, properties and uses of hybrid composites=9m 2...Classify waxes in dentistry. Write the composition of inlay waxes. Explain the procedures for obtaining the wax pattern for an inlay restoration=9m Write Short Notes On:8 X 4 = 32m3...Types and causes of casting defects. 4. Resin modified glass ionomer 5. Composition and setting reaction of polyethers. 6. Tissue conditioners 7. Bonding Agents. 8. Define stress and strain. Mention different types of tests for testing hardness 9. Soldering and types of Dental Soldering techniques. 10.Zinc oxide Eugenol impression paste Write Briefly On:  $10 \ge 2 = 20m$ 11.EAMES' Technique. 12.Sensitization and Stabilization 13.Rake angle 14.Pit and fissure sealants. 15.Biological effects of mercury **16.Cavity liners** 17. Composition of Dentifrices. 18. Sandwich Technique 19. Syneresis and Imbibition 20. Cement base. **CENTRAL LIBRARY** 9

# 421/402-FIRST & SECOND B.D.S. DEG. EXAM – DEC., 2010/JANUARY, 2011-DENTAL MATE.

1..Classify and give the ideal requirements of the denture base materials and discuss various modes of polymerization of denture base resins=9m 2. Enumerate various base metal alloys and write in detail about stainless steel=9m Write Short Notes On:  $8 \times 4 = 12m$ 4. Compressive strength 3. Die stone 5. Impression compound 6. Resilient liners 7. Fillers in Impression Materials 8. High Copper Amalgam Alloys 9. Glass lonomer cements 10.Vacuum fired porcelains Write Briefly On:  $10 \times 2 = 20m$ 11.Factors affecting rate of abrasion **12.Zinc Oxide Eugenol cements** 13.Flux and anti flux 14. Electropolishing 15. Residual Monomer 17, 18-8 stainless steel 16. Wet Corrosion 18. Annealing 19. Sodium Alginate solution 20.Welding and soldering 421-SEOND B.D.S. DEG. EXAMINATION - JANUARY, 2010-DENTAL MATERIALS-(New Reg.) 1..Classify impression materials. Write the composition and setting reaction of Zincoxide-Eugenol impression paste-9m 2...Write the composition and manipulation of Glass ionomer cement=9m Write Short Notes On:8 x = 32m

3. Creep and flow	4. Physical	properties of poly	mers	5.Accelerators an	d retarders
6. Microfilled composition	sites 7.	Types of dental ce	ramics	8. Casting maching	nes
9. Tissue conditioners	3 10	).Zinc phosphate ce	ement		
Write Briefly On: 10 x	2 = 20m				
11.Ductility and malle	eability	12.Bonding agents	s 13.Aci	d etch technique	14.Twinning
15.Measurement of se	etting time	16.Soldering and v	velding	17.Composition	n of admixed alloys
18.Casting ringliner		19.Biocompatibili	ty	20.Stress corros	sion

# 402-FIRST B.D.S. DEG. EXAM – JANUARY, 2010-DENT. MAT. & METLLURGY (O.R.)

PART-A (35 MARKS) 1..Describe the composition, manipulation and uses of Inlay Casting Wax=9m Write Short Notes On:  $4 \times 4 = 16m$ 2. Bur Materials 3. Casting Shrinkage 4. Gamma I phase 5. Divestment Write Briefly On: 5 X 2 =10m=6. Eutectic and Peritectic alloys 7. Hygroscopic Expansion 8. Silicate Cement 9. Hardness 10. Dentin Bonding Agents PART-B(35 MARKS) 11. Classify gypsum materials. Discuss in detail dental stone=9m Write Short Notes On:  $4 \times 4 = 16m$ 12.Gold Foil 13. Base Metal alloys 14.Curing cycle of Denture Base Resins 15.Soft Liners Write Briefly=16.Pumice 17.Brazing 18.Creep 19.Wetting agent 20.Rake angle in bur tooth

### SECOND B.D.S. DEGREE EXAMINATION – JUNE, 2009-DENTAL MATERIALS-N.R.

1..Classify impression materials. Write the composition and setting reaction of alginate=9m

2. Write the composition and manipulation of zinc phosphate cement=9m

Write Short Notes On:8 X 4 = 32m

- 4. Acrylic dental resins-physical properties.
- 5. Hygroscopic setting expansion
- 6. Traditional composites
- 7. Castable glass-ceramics

3. Adhesion and bonding

- 8. Causes of defective castings 10.Resin-modified glass ionomer cement
- 9. Compression molding technique Write Briefly On: 10 X 2 =20m

**CENTRAL LIBRARY** 

LENORA INSTITUTE OF DENTAL SCIENCES
11. Elastic modulus 12. Finishing and polishing agents 13. Types of stainless steel 14. Annealing
15. Disadvantages of addition silicone 16. Classification of casting alloys 17. Trituration
18. Die materials 19. Toxicity tests 20. Electrochemical corrosion
402-FIRST B.D.S. DEG. EXAM. – JUNE, 2009-DENTAL MATERIALS & METLLURGY (O.R.)
PART-A (35 MARKS)
1What are adhesive cements? Describe the composition, manipulation and uses of type I Glass Ionomer Cement (GIC)=9m
Write Short Notes On: 4 X 4 =16m
2. Calcium Hydroxide 3. Galvanism 4. Dual Core Resin 5. Polyether rubber base impression material
Write Briefly On: $5 \ge 2 = 10m$
6. Abrasion and Polishing 7. Plaster of Paris 8. Bonding Agents 9. Flux 10. Sandwich Technique
PART-B(35 MARKS)
11.Classify Dental amalgam alloys and discuss the composition, setting reaction and advantages of High-
Copper amalgam alloy=9m
Write Short :4 x 4=12.Soldering and Welding 13.Annealing 14.Zinc Oxide Eugenol 15.Base plate wax
Write Briefly On: $5 \times 2 = 10m$
16. Suck back porosity 17. Stress and Strain 18. Sprue former 19. Tissue conditioner 20. Gutta Percha
402-FIRST B.D.S. DEG. EXAM – JUNE, 2008-DENT. MATERIALS & METLLURGY (U.R.)
PARI – A (55 MARKS)
Write Short Notes On: 4x4-2 Rending Agent 2 Heat Ours Agrilia Resin
A Accelerators and Peterders for Gynsum products 5. Condensation Silicone Impression Material
Write Briefly On: $5x^2-6$ Modulus of Elasticity 7 Wet Eield Technique 8 Copolymerization 9
Porosity in Denture Base 10 Fusion Temperature
PART - B (35 MARKS)
11 Classify Dental cements according to the use and give in detail the composition setting reaction and
properties of zinc polycarboxylate cements=9m
Write Short Notes $On = 4x4=12$ . Gypsum Bonded Investment, 13. Cavity varnish, liner and base.
14. Composition of Restorative porcelain. 15. Design of Dental bur.
Write Briefly On: $=5x2=10m$
16. Delayed Expansion. 17. Creep. 18. B – Titanium alloy. 19. Welding and soldering. 20. Dentifrices.
402-FIRST B.D.S. DEG. EXAM – JUNE, 2008-DENTAL MATERIALS & METLLURGY (O.R.)
PART – A (35 MARKS)
1Classify Gypsum products. Write the composition, setting reaction of dental Plaster and dental stone=9m
Write Short Notes On=4x4=2. Bonding Agent 3. Heat Cure Acrylic Resin
4. Accelerators and Retarders for Gypsum products 5. Condensation Silicone Impression Material.
<i>Write Briefly on</i> =5x2=10m=6. Modulus of Elasticity. 7. Wet Field Technique.
8. Copolymerization. 9. Porosity in Denture Base. 10. Fusion Temperature.
PART – B (35 MARKS)
11.Classify Dental cements according to the use and give in detail the composition, setting reaction and
properties of zinc polycarboxylate cements=9m
Write Short Notes On:= 4x4=16
12.Gypsum Bonded Investment. 13. Cavity varnish, liner and base.
14. Composition of Restorative porcelain. 15. Design of Dental bur.
White Briefly Uni= 5X2=10m 16 Delayed Expansion 17 Cross 18 D. Titarium allow 10 Walding advertising 20 D. (C)
10. Delayed Expansion. 17. Creep. 18. B – 11tanium alloy. 19. weiding and soldering. 20. Dentifrices.

# 402-B.D.S. DEGREE EXAMINATION – FEBRUARY, 2008-FIRST BDS EXAM

#### PART – A (35 MARKS)

- 1. Classify Impression Materials. Describe the Composition, setting reaction, manipulation of Impression Compound.=9m
- 2. Write Short Notes On: =4x4=a) Light cure Composite resin b) Hygroscopic setting Expansion
  c) Composition of Alginate Impression material d) Duplicating Materials
- 3. Write Briefly On:= 5x2=a) Crosslinking agents for Acrylic resin
  b) Separating Media
  c) Polyurethane polymer
  d) Soft liner
  e) Ductility and Malleability

#### PART – B (35 MARKS)

- 1. Classify Dental Cements. Add a note on Glass ionomer Cement.=9m
- 2. Write short notes on: =4x4=a) Zinc Oxide Eugenol Cement
  b) Stages of firing of Dental Porcelain
  c) Metal-Ceramics
  d) Abrasives and Polishing agents
- 3. Write briefly: =5x2=a) Annealing b) Mechanical Trituration c) Divestment d) Flux e) Nitinol NR=AUGUST, 2007-FIRST BDS EXAM -DENTAL MATERIALS & METLLURGY

#### Part-A

1. Classify Impression materials. Describe the composition, Setting reaction and uses of Irreversible Hydrocolloid Impression material=9m

Write short notes on:  $4 \times 4 = 16m$ ; 2. Stress and strain 3. Hygroscopic setting expansion

4. Physical stages of polymerization 5. Electroformed dies

Write briefly on: 5 x 2 =10m;6. Hysterisis and its significance7. Synthetic gypsum8. Residual monomer9. Sodium alginate solution10. Micro leakage and its significance

#### Part-B

11. Write the Skinners classification of Dental cements. Describe the Zinc Phosphate Cement=9m Write short notes on:  $4 \times 4 = 16m$ ; 12. High copper amalgam alloys 13. Hybrid composite resins 14. Composition and properties of Inlay was 15. Aluminous porcelain

Write briefly on: 5 x 2 =10m; 16. Gold foil 17. Wet corrosion 18. Incomplete casting

 19. Pumice
 20. Enumerate dental implant materials

### **APRIL**, 2007

### PART - A

- 1. Classify gypsum materials. Discuss in detail the Dental plaster=9m
- 2. Write short: 4x4=a) Dimensions of colour b) Corrosion c)Filled resins d)Describe the properties of dental wax
- 3. Write briefly on: 5x2=10=a) Refractory materials b) Describe the composition of dental ceramics

c) Syneresis and Imbibition d) Role of plasticizer in acrylic resins e) Resiliency PART – B

- 1. Classify dental casting alloys. Describe the mechanical properties of casting gold alloys. Add a note on heat treatments=9m.
- 2. Write short notes on: 4x4=16=a) Micro filled composite resins
  b) Zinc poly carbox ylate cement
  c) Setting reaction of high copper amalgam alloys
  d) Cavity liners and bases
- 3. Write briefly on: 5x2=a) Frozen glass slab method b) Casting ring liner c) Solders d) 18-8 stainless steel e) Laminate technique

### SEPTEMBER.-2006

### Part-A

- 1. Classify denture base materials. Describe the compression molding technique=9m
- 2. Write short notes on: 4 x 4 =16m; a) Gypsum bonded investment materialb) Hardnessc) Die stoned) Manipulation of rubber base impression material
- 3. Write briefly on: 5 x 2 =10m; a) Ductility and malleability
  b) Soldering and Welding
  c) Non eugenol impression paste
  d) Nitinol
  e) Percolation

Part-B

- 4. Classify dental amalgam alloys.Describe the composition, properties & manipulation of admixed amalgam alloys
- 5. Write short answers on:  $4 \times 4 = 16m$ ; a) Glass Ionomer cement b) Dentine bonding agents c) Properties of metal ceramic alloys d) Induction casting machine
- 6. Write briefly on: 5 x 2 = 10m; a) Mat gold e) Composition of impression compound.

b) Glaze c) Curing cycles d) Tissue conditioners

### **FEBRUARY-2006**

Part-A

- 1. Classify composite resins and describe in detail the composition, properties and uses of hybrid composites=9m
- 2. Write short answers on:  $4 \times 4 = 16m$ ; a) Free radical polymerization
  - b) Composition and properties of alginate impression material

c) Setting reaction and chemical stages in setting of gypsum d) Stress-Strain curve

- 3. Write briefly on:  $5 \ge 2 = 10m$ ; a) Significance of fusion temperature of impression compound
- b) Non-eugenol impression paste c) Fissure conditioners d) Activators and initiator in cold acrylic resins
  - e) Composition of Additions Silicone impression material

### Part-B

- 4. Classify Dental cements according to the use and give in detail the composition, setting reaction and properties of zinc polycarboxylate cements=9m
- 5. Write short answers on:  $4 \times 4 = 16m$ ; a) Properties of Dental amalgam b) Types of Direct filling gold c) Stabilization and sensitization of stainless steel d) Porosites in dental casting b) Softening heat treatment c) Uses of Titanium
- 6. Write brief answers on: 5 x 2 = 10m; a) Sticky wax d) Polishing agents for cast restorations

### **AUGUST-2005 (New Regulations)**

e) Giazing

Part-A

- 1. Enumerate the final impression materials for edentulous arches and write about composition, manipulation and properties of the Zinc Oxide Eugenol Impression pastes =9pages
- 2. Write short answers on:  $4 \times 4 = 16$  marks; a) Curing cycles for heat cure acrylic resin b) Biocompatibility of Dental Materials c) Separating media used in dentistry d) Die stone
- 3. Write briefly on: 5 x 2 = 10m=a) Define Glass transition temperature b) Contents in composite resins c) Mention activating systems for autopolymerising resins d) Define elasticity and stiffness
  - e) Drawbacks of alginates

Part-B

- 4. Classify silver amalgam alloys. Write in detail composition and setting reaction of high-copper silver alloys=9m
- 5. Write short answers on:  $4 \times 4 = 16$  marks; a) Glass ionomer cement b) Sprue-formers c) Ideal requirements of Dental solder d) Factors affecting rate of abrasion
- 6. Write brief answers on: 5 x 2 = 10 marks; a) Define and give the purpose of degassing gold foil b) Purpose of condensation of amalgam mass in cavity
  - c) Contents in Zinc Polycarboxylate cement powder and liquid d) Die hardener and die spacer
  - e) Define sensitization and stabilization

### MAR/APR.2005.

Part-A

- 1. Ennumerate various synthetic resins and discuss the composition and manipulation and uses of Heat-cure acrylic resins=9marks
- 2. Write short notes on:  $4 \ge 4 = 16$  marks; a) Polyether rubber base impression material b) Composition of composite resins c) Dental stone d) Pit and fissure sealants
- 3. Write briefly on: 5 x 2 = 10 marks; a) Ductility and Malieability b) Hygroscopic expansion d) Di-vestment e) Wet-field technique c) Setting of polysulphide rubber base material

LENORA INSTITUTE OF DENTAL SCIENCES
Part-B
4. Classify Dental amalgam alloys and discuss the composition, setting reaction and advantages of High-Copper amalgam alloy =9marks
<ul><li>5. Write short answers on: 4 x 4 =16marks; a) Liners and bases for dental restoration</li><li>b) Metal-ceramic bond</li></ul>
c) Abrasive agents used in dentistry d) Contents in Dental Casting Gold alloys
<ul> <li>6. Write brief answers on: 5 x 2 =10marks; a) Composition of inlay wax</li> <li>b) Types of Dental Ceramics</li> <li>c) Setting reaction of Zn-PO4 Cement</li> <li>d) Cohesive Gold</li> <li>e) Flux and anti flux</li> </ul> OCTOBER, 2004. (New Regulations)
Part-A
1. Classify impression materials. Describe the composition, setting reaction and factors affecting setting time of Zinc Oxide Eugenol paste =9m
2. Write short answers on: $4 \times 4 = a$ ) Duplicating materials b) Die stone c) Curing cycles d) Dimensions of colour
3. Write briefly on: 5 x 2 =a) Syneresis and Imbibition b) Synthetic Gypsumc) Coupling agents in composite resins
d) Reline technique for elastomeric impressions e) Cross linking agents and their role in acrylic resins.

Part-B

- 4. Discuss various steps in casting procedure of inlay and add a note on shrinkage porosity=9m
- 5. Write short notes on: 4 x4 =16m; a) Admixed dental amalgam alloys b) Glass ionomer cements c) Properties desirable in metal-ceramic alloys d) Baking stages in dental porcelain
- 6. Write briefly: 5 x 2 =a) Baseplate wax b) Mat gold c) Advantage of resin cements d) Nitinol e) Diamong.

#### Part-A

#### APRIL/MAY,2004

- 1. Enumerate various gypsum products and write in detail about manufacturing and standardization of Dental plaster and Dental stone =9marks
- 2. Write short answers : 4 x 4;a) Peripheral Tracing sticks b) Addition Silicone Rubber base impression materials.
  c) Hardness d) Self care acrylic resin.

3. Write briefly on:  $5 \ge 2 = a$ ) Purpose of soft liners b) Mention purpose of acid etching

- c) Modes of activation for polymerization d) Crazing in acrylic bases
- e) Role of Trisodium phosphate in alginate

#### Part-B

- 4. Enumerate various casting investment materials and write in brief about contents, manipulation and care while using Phosphate Bonded investment materials. =9marks
- 5. Write short answers on: 4 x 4 =16marks;
  b) Ideal requirements of inlay casting wax
  c) Electro-chemical corrosion
  d) Creep in amalgam
- 6. Write briefly on: 5 x 2 =10marks; a) Purpose of die spacer b) Define carat and fineness of gold alloys
  c) Vent sprues d) Contents in modeling wax e) Pumice

#### **OCTOBER, 2003. (N.R.)**

#### Part-A

1. Write in brief about requisites for dental resins and composition, manipulation and processing of the heart cure acrylic resin. =9marks

- 2. Write short answers on: 4 x 4=a) Duplicating materials b) Pit and fissure sealants c) Modulus of elasticity d) Classification of resin based composites.
- 3. Write briefly on: 5 x 2 =10marks;
  a) Mention fillers in Dental Materials b) Syneresis and imbibition
  d) Define electroplating and electropolishing e) Contents in die stone

LENORA INSTITUTE OF DENTAL SCIENCES
Part-B
4. Classify Dental Cements and write in brief about recent advances in Zinc Phosphate Cement. 9marks
5. Write short answers on: $4 \times 4 = 16$ marks; a) Alloys for metal ceramics b) Fluxes used in Soldering
c) Polishing agents d) Types of Stainless Steel
6. Write briefly on: 5 x 2 =10marks: a) Cavity liners b) Back pressure porosity
c) Contents in admixed silver alloys d) Define Trituration and condensation of amalgam. e) Uses of Titanium.
APRIL,2003. (N.R.)
Part-A
1. Write in detail about composition, manipulation & disadvantages of irreversible hydrocolloid impression materials
2. Write short answers on: $4 \times 4 = 16 \text{m} = a$ ) Gypsum bonded investments for casting b) Curing cycles
c) Soft liners for dentures d) Contents and their role in composite resins
3. Write brief answer: 5 x 2=a) Name any two pit and fissure sealants b) Uses of peripheral tracing compound
c) Crazing in acrylic resin d) Wet and dry strength e) Test for measuring setting time
Part-B
1. Enumerate various dental casting alloys. Write in brief about content of gold alloys =9marks
2. Write short answers on: $4 \times 4 = 16m = a$ ) Ideal requirements of dental casting waxes. b) Casting defects
c) Phosphate banded investment d) Firing of dental porcelains
6. Write briefly: 5 x $2 =$ ; a) Any four polishing agents b) Define Heat hardening and softening treatment
c) Contents of cavity varnishes d) Types of stainless stell e) Direct filing gold various type
OCTOBER, 2002
Part-A
1. Classify impression materials and describe in detail about contents, setting and properties of silicon rubber base
impression material=9marks
2. Write short answers on: $4 \times 4 = 16$ a) Stress and Strain relation b) Die stone
c) Autopolymerising Acrylic resins d) Causes for porosities in resins
3. Write briefly: 5 x 2=a) Define hygroscopic expansion b) Physical stages in mixing of heat cure acrylic resin
c) Uses of agar-agar d) Define Imbibition & Syneresis e) Mention accelerator & retarder for ZOE paste.
Part-B
3. Classify Dental Amalgam alloys and write in detail about admixed Silver alloys =9marks
4. Write short answers on: 4 x 4=16 a) Ideal requirements of Orthodontic wires
b) Composition of various chrome-cobalt alloys c) Compensation of Casting Shrinkage d) Compomers
5. Write briefly on: 5 x 2 =10marks=a) Mention methods of melting of dental casting alloys
b) Define and give the cause of 'Suck back' porosities in casting
c) Uses of Tungsten Carbide d) Mention types of bond between porcelain and metal
e)Uses of modelling wax.

10<sup>th</sup> August, 2001. Time: 3hrs, Marks-80 - Answer Part A & B in separate answer books. Answer all questions – Part-A

- 1. Classify and give ideal requirements of impression materials and discuss in detail contents, manipulation and merits of Poly vinyl siloxane impression material –10marks
- 2. Write short Notes: 6x5=30m=a) Pit & fissure sealants b) Autopolymerising resins
- c) Hygroscopic expansion d) Hardness tests e) Agar-agar

Part-B

- 1. Classify Dental amalgam alloys. Describe composition and properties of high copper containing silver alloys. Add a note on setting reaction upon trituration -10marks
- 2. Write short Notes: 6x5=30m=a) Ideal properties of orthodontic wires b) Welding in dentistryc) Wet corrosion d) Meta-ceramic alloye) Glass ionomer cementf) Pumice

FEDUADY 2000
Part-A
1 Give the classification of Waxes Write in detail about inlay casting wax $=10$ marks
2. Write short notes on: 6x5=30m=a) Asbestos liner b) Spruing c) Gold alloys d) Eutectic solutions
e) Wrought metals f) Stages in Polymerization reaction
Part-B
3. What is amalgam? Give the classification properties and manipulation of dental amalgam =10marks
4. Write short notes on: 6 x 5 =30m=a) Heat cure acrylic b) Zincoxide eugenol paste c) Dental Plaster
d) Chromium-cobalt alloys e) Shrink-free ceramics
<b>OCTOBER, 1999.</b>
Part-A
1. What are gypsum products? Write in detail about the manipulation & properties of alpha Hemihydrate material
2. Write short notes on: 6 x 5 =30m=a) Ductility and malleability b) Tarnish and corrosion
c) Soldering d) Synersis and imbibition e) Die and counter die materials f) Calcium Hydroxide
Part-B
3. What are base metal alloys? Describe different base metal alloys used in Dentistry?
4. Write short notes on: 6x5=a) Silicate Cement b) Admixed alloys c) Cavity Varnishes
d) Abrasives e) Modelling wax f) Pickling solutions.
10 <sup>th</sup> April, 1999.
Part-A
1. Classify impression materials and discuss in detail about composition, manipulation and properties of elastomeric impression material =10marks
2. Write short notes on: 6x5=a) Wanderval forces b) Separating media c) Hydroscopic expansion
d) Polymerization reaction e) White gold alloys f) Pit and fissure sealants
Part-B
3. What do you understand by 'luting agents'? Mention the different luting agents and discuss the requirements of luting agents =10marks
4.Write short: 6x5=a) Stainless steel alloys b) Agar-Agar material c) Cermet d) Copper amalgam e) Polishing ag
OCTOBER, 1998.
Part-A
1. Write in detail about composition and manipulation properties of irreversible hydrocolloid impression material
2. Write short notes on: 6x5=a) Stress and Stain b) Biologic consideration for selection of dental materials
c) Porosities in acrylic resin d) Tissue conditioners e) Casting Waxes
f) Accelerators and retraders to gypsum products.
Part-B
3. Classify noble metal costing alloys. Discuss the typical compositions of noble metal casting alloys =10marks
4. Write short notes: $6x5=a$ ) Ideal requirements of base and cavity liners b) Zinc polycarboxylate cement
c) Electro polishing d) Compensation of casting shrinkage f) Diamong as an abrasive
APD II 1008
Part_A
1. Enumerate various denture base material mention ideal requirements of Denture base resins and stages in polymerization-10
2. Short Notes: a) Impression Plaster b) Duplicating Materials c) Creep d) Pit and fissure sealants
e) Imbibition and Syneresis f) Filters in Dental Materials –6x5=30marks
Part-B
1. Discuss in detail composition of Dental Porcelains. Add a note on Glazing –10marks
2. Short Notes: a) Resin Cements b) Fluxes for soldering c) Cavity liners d) Casting defects
e)Role of ingradiants in noble metal casting alloys

e)Role of ingradiants in noble metal casting alloys f)Composition & setting reaction of Phosphate bonded investments

### **CENTRAL LIBRARY**

### **OCTOBER, 1997.**

#### Part-A

- 1. What is Elastomer? Enumerate various elastometric impression materials and write in detail about addition silicone rubber base materials –10marks
- 2. Short notes on any FIVE=5x5=a) A.D.A.–Specification b) Microfilled composite resin
- c) Peripheral tracing compound d) Hardness tests e) Die materials f) Composition of cold cure acrylic resin Part-B
- 3. Classify Dental amalgam alloys. Write in detail about composition and advantages of High copper containing silver amalgam alloys –10marks
- 4. Short notes: 5 x 6 = 30 marks a) Glass ionomer cement b) Requirements of metal for metal ceramics
- c) Factors affecting rate of abrasion d) Hygroscopic expansion e) Modelling waxes f) 18-8 stainless steel

### APRIL, 1997.

- 1. Classify investment materials. Describe in detail gypsum Bonded investment –10marks
- 2. Short Notes: a) Copper rich Amalgam alloy b) Sprue c) Soldering d) Polyether impression materials e) Inlay Wax =5 x 5 =25 marks

#### Part-B

Part-A

3. Give Ideal requirement of denture Base Materials. Explain the defects seen in Heart cure acrylic resin denture base=10m

4. Short notes on : a) Denture reliners b) Poly carboxylate cement c) Microfilled composite resin d)Polishing agents e)Setting reaction in Alginates f)Advantages of Dental Porcelain as restorative material =6x5

### **OCTOBER**, 1996.

#### Part-A

- 1. Classify Waxes. Write in detail about inlay waxes. =10marks
- 2. Short Notes: a) Direct bonding cement b) Gypsum bonded investment c) Sprue d) Polishing agents e) Mat Gold f) Strength and hardness =5x5=25marks

#### Part-B

- 3. What are heat cure resins? Give the composition, properties and manipulations of Heat cure Resins =10m
- 4. Short Notes: a) Chrome-Cobalt b) Irreversible impression material c) Tarnish d) Dental plaster e) Model Cement f) High cure Amalgam 5 x 6 =30marks