II B.D.S Degree Examination – Mar-2022

Time: 3 Hrs.

[Max. Marks : 70]

# **Dental Materials**

#### (Note : To be answered within total duration of 3 hours)

#### LONG ESSAY

#### 1 X 10 = 10 Marks

1. Classify dental amalgam alloys. Describe in detail the composition and amalgamation reactons of amalgam alloys.

2. Classify dental impression materials. Describe in detail the composition, setting mechanism, manipulation technique and uses of hydrocolloid impression materials.

SHORT ESSAYS (8X5=40MARKS)

- 3. Zinc Oxide-Eugenol impression paste.
- 4. Resin modified glass ionomer cement.
- 5. Glass Ceramics.
- 6. Composition and uses of Type I Gypsum products.
- 7. Dentifrices.
- 8. Acid etch technique.
- 9. Injection molding technique.
- 10. Steps in casting procedure.

SHORT ANSWERS (5X2=10MARKS)

- 11. Imbibition.
- 12 Reservoir

13. Hue.

- 14. Uses of Nickel-titanium alloys.
- 15. Degassing procedure

## II B.D.S Degree Examination – Nov-2021

Time: 3 Hrs.

[Max. Marks : 70]

# **Dental Materials**

#### (Note : To be answered within total duration of 3 hours)

#### LONG ESSAY 1 X 10 = 10 Marks

1. Define and classify dental composite resins. Describe in detail the properties and uses of hybrid composites.

2. Classify impression materials. Write in detail the composition, properties and uses of zinc oxide eugenol impression pastes.

#### Short essay 8 X 5 = 40 Marks

- 3. Die material- types and uses.
- 4. Tarnish and corrosion.
- 5. Composition of ceramics.
- 6. Sprue former.
- 7. Pit and fissure sealants.
- 8. Dough stage in acrylic resins.
- 9. Nickel chromium alloys.
- 10. Biocompatibility of dental materials.

#### SHORT ANSWERS 2 X 5 = 10 Marks

- 11. Draw a neat labeled diagram of bacterial spore
- 12. Name 4 RNA viruses
- 13. Bacterial growth curve phases with diagram
- 14. Blood agar preparation
- 15. Name 2 pathways of compliment

# II B.D.S Degree Examination – 31st March 2021

Time: Three Hours

Max. Marks: 70

## **DENTAL MATERIALS (RS-3)**

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

## LONG ESSAYS 2X10=20 Marks

Q.1 Define composite resin. Classify composite resins. Discuss the composition of composite resins.

Q.2 Classify impression materials. Write in detail about reversible hydrocolloids (agaragar).

ent.

## SHORT ESSAYS 5X8=35 Marks

- Q.3 Composition and manipulat
- Q.4 Tests for evaluation of bi
- Q.5 Dentifrices.
- Q.6 Soldering and welding.
- Q.7 Dentine bonding agents
- Q.8 Phosphate bonded investi
- Q.9 Resin modified glass ionomer
- Q.10 Classify all ceramic materials. Write meny about pressable ceramics.

## SHORT ANSWERS 2X5=10 Marks

- Q.11 Gilmore needle.
- Q.12 Nickel titanium wires.
- Q.13 Manipulation of impression compound.
- Q.14 Carving and finishing of amalgam.
- Q.15 Delayed Expansion.

# II B.D.S Degree Examination – Special chance 08 FEB 2021

Time: Three Hours

Max. Marks: 70

# **DENTAL MATERIALS (RS-3)**

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary

# LONG ESSAYS 2x10=20 Marks

Q.1 Classify composite restorative materials. Write in detail about the various components in their Composition, properties and, uses of composite resins.

Q.2 Classify dental waxes. Describe the composition, properties, manipulation and uses of inlay wax.

# SHORT ESSAYS 8x5=40Marks

- Q. 3 Castable ceramics.
- Q. 4 Gypsum bonded investment material. Kcc
- Q.5 High copper amalgam.
- Q.6 Auto polymerizing resins.
- Q.7 Classify direct filling gold and add a note on its compaction.
- Q.8 Hygroscopic setting expansion.
- Q.9 Condensation, carving and finishing of dental amalgam.
- Q.10 Soldering and welding.

# SHORT ANSWERS 2x5=10Marks

- Q.11 Modified alginate.
- Q.12 Polishing agents used in acrylic denture resins.
- Q.13 Ductility.
- Q.14 Wrought alloys.
- Q.15 Mention dentin bonding agents.

# II B.D.S Degree Examination – 26-Nov-2020

Time: Three Hours

Max. Marks: 70

## **DENTAL MATERIALS (RS-3)**

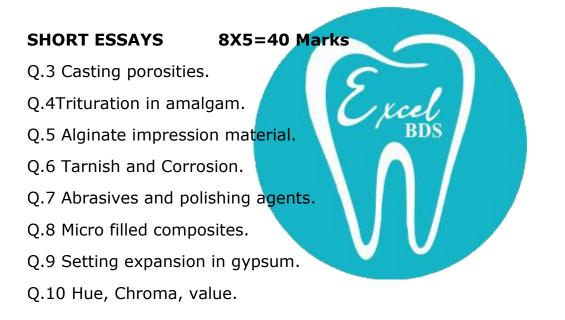
Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary

## LONG ESSAYS 2X10=20 Marks

Q.1 Classify elastomeric impression materials. Write in detail about the composition, setting reaction, properties and uses of poly vinyl silicones.

Q.2 Classify dental cements. Mention the composition, setting reaction, properties and uses of glass ionomer cements.



## SHORT ANSWERS 5X2=10 Marks

- Q.11 Acid etch technique.
- Q.12 Imbibition and syneresis.
- Q.13 Stress.
- Q.14 Classify trays used to make dental impressions.
- Q.15 Dentifrices.

II B.D.S Degree Examination – JULY 2019

Time: 3 Hrs.

#### DENTAL MATERIALS (RS-3)

[Max. Marks : 70]

#### QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

1. What are luting cements? Write in detail about the classification, composition, setting reaction and

uses of type II glass ionomer cement.

2. Define hydrocolloids. Write the composition, setting reaction, control of setting reaction, uses,

advantages, disadvantages and properties of alginate impression materials.

SHORT ESSAYS 8 x 5 = 40 Marks

- 3. Sandwich technique
- 4. Manipulation and uses of zinc phosphate cement
- 5. Tarnish and corrosion
- 6. High strength, high impact denture base resin
- 7. Casting defects
- 8. Condensation silicones
- 9. Eutectic and peritectic alloys
- 10. Biocompatibility of dental materials
- SHORT ANSWERS 5 x 2 = 10 Marks
- 11. Long curing cycle
- 12. Modulus of elasticity
- 13. Eames technique
- 14. Thermal expansion
- 15. Dentifrices

II B.D.S Degree Examination – Dec 2019

[Max. Marks : 70]

2 X 10 = 20 Marks

# DENTAL MATERIALS

(RS-3) QP Code: 1185

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

Time: 3 Hrs.

1. Classify the impression materials. Describe the composition and properties of addition silicone.

2. Define and classify composite resin. Describe in detail the manipulation and curing methods of restorative composite resins

Short Essay

- 3. Tests for biocompatibility
- 4. delayed expansion of amalgam
- 5. Luting cement
- 6. Porosities in casting
- 7. Type III Gypsum products
- 8. Soldering and wielding
- 9. Classification of dental ceramics
- 10. Composition and uses of inlay wax

Short answers

- 11. 18-8 stainless steel
- 12. Dual cure resins
- 13. Malleability
- 14. Eutectic alloys
- 15. Cavity varnish



II B.D.S Degree Examination – JULY 2018

Time: 3 Hrs.

## **DENTAL MATERIALS**

#### (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

[Max. Marks : 70]

• What are the types of denture base materials. Write in detail about their chemical and physical stages of polymerization and add a note on types of curing cycles.

• Define amalgam. Write in detail about the composition, uses, advantages, disadvantages, manipulation and properties of high copper amalgam.

#### SHORT ESSAYS

- Dental stone
- Impression compound
- Hardness
- Visible light cure resin
- Direct filling gold
- Titanium alloys
- Casting defects
- Allergic reaction to dental materials

- Non eugenol cement
- Contact angle
- Galvanism
- Curing of composite resins
- Enumerate castable ceramics.



II B.D.S Degree Examination - Dec 2018

Time: 3 Hrs.

## **DENTAL MATERIALS**

(RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

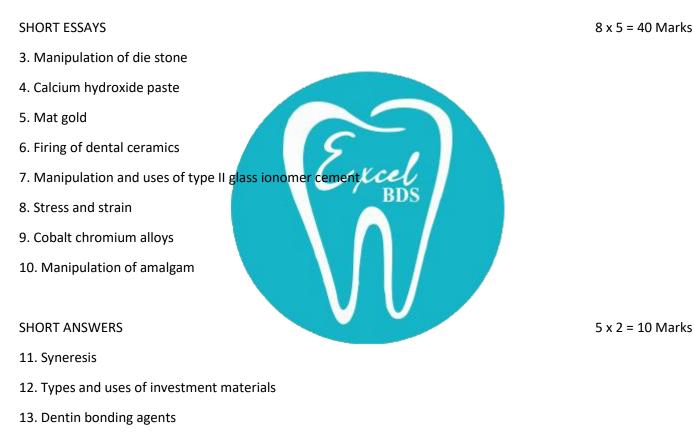
#### LONG ESSAY

2 X 10 = 20 Marks

[Max. Marks : 70]

1. What are dental alloys? Write in detail the classification, composition and uses of dental casting alloys.

2. Classify dental impression materials. Describe in detail the properties, manipulation and uses of Addition silicone impression material.



- 14. Pulp capping agents
- 15. Tissue conditioners

II B.D.S Degree Examination – JUNE 2017

Time: 3 Hrs.

## **DENTAL MATERIALS**

#### (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

[Max. Marks : 70]

• Classify impression materials. Write in detail about the composition, setting reaction, and properties of polyvinyl siloxane impression material

• Describe in detail about the composition, properties, and manipulation of Glass ionomer cement.

SHORT ESSAY

- Work hardening and annealing
- Curing resin based composites

- Casting defect
- Low copper alloys
- Injection molding technique
- Eutectic alloys

- Soldering and welding
- Creep
- Metamerism
- Coupling agents
- Base plate wax



II B.D.S Degree Examination – DECEMBER 2017

Time: 3 Hrs.

## **DENTAL MATERIALS**

## (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

BDS

#### LONG ESSAY

2 X 10 = 20 Marks

[Max. Marks : 70]

- Classify Dental cement. Discuss the composition, manipulation and uses of Zinc polycarboxylate Cement
- Classify denture base resins. Explain the compression molding technique

SHORT ESSAYS

- Role of fillers in composite resin
- Metal free ceramics
- Suck back porosity
- Finishing and Polishing of Amalgam restorations
- Composition and setting reaction of Alginate impression material
- Soldering and Welding
- Significance of Accelerators and retarders in Gypsum products
- Cavity varnish and liners

- Super elasticity
- Boxing wax
- Sprue
- Acid etch technique
- Microleakage in dental restorations

II B.D.S Degree Examination – JUNE 2016

[Max. Marks : 70]

Time: 3 Hrs.

## **DENTAL MATERIALS**

## (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

• Classify Dental cements based on their uses and describe the composition, setting reaction and properties of Zinc Phosphate Cement

• Classify impression materials and describe the composition, setting reaction and properties of Alginate impression material

#### SHORT ESSAYS

- Dentifrices
- Methods of strengthening Dental porcelain
- Types of Stainless steel
- Types of Casting defects
- Dental Implant materials
- High Copper Amalgam Alloys
- Heat treatment
- Stress and strain

- Sprues
- Tray adhesives
- Galvanism
- Bite registration wax
- Coefficient of Thermal expansion

# II B.D.S Degree Examination – DECEMBER 2016

[Max. Marks : 70]

Time: 3 Hrs.

## **DENTAL MATERIALS**

## (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

• Classify investment materials. Write in detail the composition, setting reaction and uses of gypsum bonded investment materials

• Classify dental cements. Describe the composition, setting reaction and uses of glass ionomer cements

#### SHORT ESSAYS

- Glaze ceramic
- Acid etch technique
- Soldering and welding
- Coupling agent
- Delayed expansion
- Biocompatibility tests
- Implant materials
- Annealing in direct filling gold

- Micro hardness test
- Polishing agents
- Uses of zinc oxide eugenol cement
- Dentifrices
- Copy milling



# Rajiv Gandhi University of Health Sciences II B.D.S Degree Examination – JULY 2015

Time: 3 Hrs.

# DENTAL MATERIALS

# (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

## LONG ESSAY

2 X 10 = 20 Marks

[Max. Marks : 70]

• Classify denture base resins. Write in detail about the different methods of curing

• Classify silver amalgam alloys. Write in detail about the composition, properties and Setting reaction of silver amalgam.

SHORT ESSAY

- Write about the technical considerations of gypsum bonded investment
- Noble metal alloys
- Classification of direct filling gold
- Type 3 gypsum product
- Liners and bases
- Inlay wax
- Dentin bonding agents
- Dental implant materials

- Pit and fissure sealants
- Uses of polycarboxylate cement
- Acid etch technique
- Creep
- Tray compound



# Rajiv Gandhi University of Health Sciences II B.D.S Degree Examination - DECEMBER 2015

Time: 3 Hrs.

## DENTAL MATERIALS

## (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

[Max. Marks : 70]

- Classify Dental Amalgam alloys and describe the steps in manipulation of high Copper Amalgam Alloys
- Describe in detail about Abrasive and Polishing agents

SHORT ESSAYS

- Distortion and remedies of Inlay waxes
- Adverse effects of Dental materials
- Metal Ceramic Bonding
- Types of Glass ionomer cements
- Eutectic and Peritectic Alloys
- Components of Composite Resin
- Firing procedure in Dental Ceramics
- Explain different types of denture base resins in brief

- Eames technique
- Elastic limit
- Super cooled Liquids
- Spherulites
- Die Spacer

# Rajiv Gandhi University of Health Sciences II B.D.S Degree Examination – JUNE 2014

Time: 3 Hrs.

# DENTAL MATERIALS

# (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

[Max. Marks : 70]

• Classify impression materials. Compare in detail the properties, advantages, disadvantages and uses of hydrocolloids with elastomeric impression materials. Add a note on disinfection of impressions

• Discuss in detail the properties, advantages, disadvantages of dental ceramics. What are CAD-CAM restorations

SHORT ESSAY

- What are luting cements.Write their ideal requisites\_
- Expansion in investment materials
- Die stone
- Manipulation of silver amalgam
- Biocompatibility testing of dental materials
- Corrosion and its prevention
- Denture liners
- Abrasives and polishing agents

- Microwave curing of resins
- Die spacers
- Classification of inlay wax
- Advantages and disadvantages of direct filling gold
- Self etch dental adhesives

# Rajiv Gandhi University of Health Sciences II B.D.S Degree Examination - DECEMBER 2014

# DENTAL MATERIALS

[Max. Marks : 70]

# (RS-3)

(RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

• Define the term Water BY Powder Ratio and explain the setting reaction, methods of determining the setting times and factors affecting setting time of Gypsum Products.

• Describe in detail Composition, setting reaction, uses and properties of Zinc oxide Eugenol impression material

SHORT ESSAYS

- Explain in brief any five physical properties of dental materials
- Composition of Dental Ceramics

Time: 3 Hrs.

- Addition Poly Vinyl siloxane impression material
- Micro filled Composite Resin
- Polymerization cycles
- Calcium Hydroxide Cement
- Sensitization and Stabilization
- Explain different types of direct filling gold in brief.

- Pickling
- Glass transition temperature
- Crazing
- Rheology
- Age hardening

II B.D.S Degree Examination – June 2013

Time: 3 Hrs.

## **DENTAL MATERIALS**

## (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

[Max. Marks : 70]

• Classify dental cements. Add a note on the composition, types, chemistry of setting reaction and uses of glass ionomer cements.

• Classify denture base resins. Discuss their properties, manipulation, advantages and disadvantages

SHORT ESSAY

- Separating media
- Delayed expansion
- Sandwich technique
- Gold foil
- Galvanism



II B.D.S Degree Examination – DECEMBER 2013

Time: 3 Hrs.

#### DENTAL MATERIALS (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

[Max. Marks : 70]

- Classify silver amalgam. Write the composition and setting reaction of high copper amalgam
- Classify dental resins and give their composition. Compare self cure and heat cure acrylic denture base resins

SHORT ESSAY

- Define dental cast. Write the advantages and disadvantages of gypsum products as cast materials
- Setting time and uses of Zinc oxide eugenol impression paste
- Resin modified glass ionomer cements
- Properties of 18 8 stainless steel
- Design of dental burs
- Rheological properties of dental materials
- Noble verses base metal casting alloys
- Porcelain fused to metal restoration

- Die spacer
- Tray adhesives
- Microleakage
- Acid etching
- Cavity varnish

II B.D.S Degree Examination – June 2012

Time: 3 Hrs.

[Max. Marks : 70]

## **DENTAL MATERIALS**

(RS-3) QP Code: 1185

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

Classify denture base materials. Write in details about the chemistry, properties and manipulation of heat cure acrylic resins

Describe the composition, setting reaction and advantages of glass ionomer cement

#### SHORT ESSAY

- Refractory materials
- Acid etching
- Classification of dental ceramics
- Cavity varnish
- Resin modified glass ionomer cement
- Soldering
- Direct filing gold
- High copper amalgam

- Chemistry of setting of irreversible hydrocolloid
- Localized shrinkage porosity during casting
- Zinc oxide eugenol cements
- 18-8 stainless steel
- Stress and strain



II B.D.S Degree Examination – DECEMBER 2012

Time: 3 Hrs.

# **DENTAL MATERIALS**

(RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

[Max. Marks : 70]

- Give ideal requirements of investment material. Describe briefly about gypsum bonded investment
- Classily dental amalgam alloys. Describe briefly the composition and setting properties of admixed alloys

SHORT ESSAY

- Abrasive and polishing agents
- Components of composite resins
- Silicone impression materials
- Setting reaction of glass ionomer cements
- Zinc phosphate cement
- Cavity varnish
- Tissue conditioners
- Heat curing resins

- Nitinol wires
- Cohesive gold
- Solid solutions
- Microfilled composites
- Resin teeth



II B.D.S Degree Examination – June 2011

Time: 3 Hrs.

[Max. Marks : 70]

## **DENTAL MATERIALS**

(RS-3) QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

1. Classify impression material. Discuss in detail about the irreversible hydrocolloid impression material.

2. Define composite. Classify composite. Discuss briefly about each material.

Short essay

- 3. Luting cement
- 4. Base plate material
- 5. Hygroscopic expansion
- 6. Composition of ceramic
- 7. Stress and strain
- 8. Annealing of gold foil
- 9. Inlay wax
- 10. Poly carboxylate cement

Short answers

- 11. Delayed expansion
- 12. Pickling solution
- 13. Denture reliners
- 14. 18-8 wires
- 15. Dievestment



II B.D.S Degree Examination – Dec 2011

Time: 3 Hrs.

[Max. Marks : 70]

## **DENTAL MATERIALS**

(RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

2 X 10 = 20 Marks

Classify dental ceramics. Write in detail about various all ceramics materials

• Discuss the composition and amalgamation reaction of high copper amalgam alloys

SHORT ESSAY

- Chemistry of polymerization
- Hardness tests
- Zinc phosphate cements
- Manufacture of gypsum
- Metal modified glass ionomer cements
- Light cured composite resins
- 18-8 stainless steel
- Casting shrinkage in alloys

- Disinfection of impression
- Flux and antiflux
- Classification of abrasives
- Annealing
- Irreversible impression materials



II B.D.S Degree Examination – June 2010

Time: 3 Hrs.

# **DENTAL MATERIALS**

[Max. Marks : 70]

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

1. Classify denture base resins. Write in detail about the different methods of curing

2. Classify silver amalgam alloys. Write in detail about composition, properties, setting reaction. Add a note on mercury hygiene.

Short essay

- 3. Write about the technical consideration of gypsum bonded investment.
- 4. Compare and contrast base metal and nobel metal alloys 5. Compare and contrast alpha and beta hemihydrate 6. Type III gypsum products 7. Liners and bases 8. Inlay wax 9. Gutta percha 10. Dental implant material Short answers
- 11. Pit and fissure sealants
- 12. uses of polycarboxylate cement
- 13. Acid etch technique
- 14. Creep
- 15. Tray compound

# (RS-3)

#### 2 X 10 = 20 Marks

II B.D.S Degree Examination – DECEMBER 2010

[Max. Marks : 70]

Time: 3 Hrs.

## **DENTAL MATERIALS**

## (RS-3)

QP Code: 1185 Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

#### LONG ESSAY

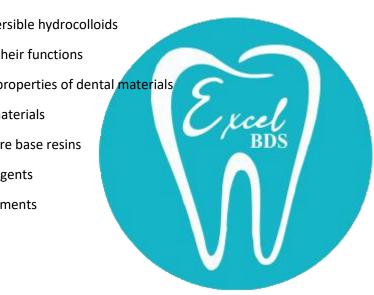
2 X 10 = 20 Marks

- Classify dental cements, describe briefly setting reaction and manipulation of each cement
- Classify dental base resins write in detail about heat cure resins

SHORT ESSAY

- Posterior composites
- Gelation of irreversible hydrocolloids
- Dental burs and their functions
- Thermophysical properties of dental materials
- Dental implant materials
- Porosity in denture base resins
- Dentin bonding agents
- Glass ionomer cements

- Epoxy die materials
- Tin foil substitutes
- Preamalgamated alloys
- High copper alloys
- Amalgamator



# **Excel BDS**

We Take Daily Discussion over a Whatsapp based group

Motivating students for Distinction and NEETMDS from BDS 1st, 2nd 3rdyr and 4th year.



To Join Our Whatsapp Group Click Here



# IInd Year Excel DENTISTRY

Solved 85+ Question Papers of RGUHS



Dr Syed Ahmed Khadri Dr Junaid Ur Rahman Syed

# **Previous 10 years Question Papers**

2nd Edition

- Pharmacology
- Pathology
- Microbiology
- Dental Materials

**Rajiv Gandhi University of Health Sciences Solved Question Papers** 

TO PURCHASE OUR MATERIAL CLICK HERE