

NARAYANA DENTAL COLLEGE
I B.D.S Internal Examination – JUNE-2019

Time: three hours.

[Max. Marks : 35]

PHYSIOLOGY

LONG ESSAY

1 X 10 = 10 Marks

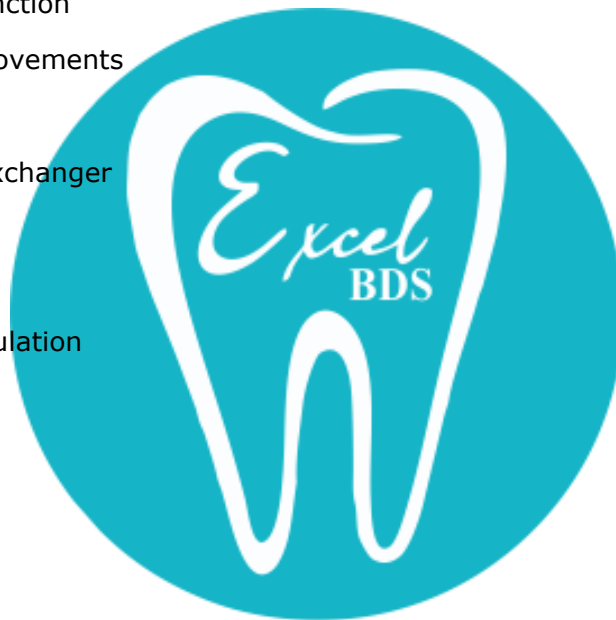
1. Discuss the process of urine formation

SHORT

2. Neuromuscular junction
3. Large intestinal movements
4. Deglutition
5. Counter current exchanger

very short

6. Enterohepatic circulation
7. Oxyntic cells
8. Gastrocolic reflex
9. Myasthenia gravis
10. Motor unit



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BIOCHEMISTRY

LONG ESSAY

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LONG

1. Describe significance , pathway and energetics of TCA cycle

SHORTS

2. Mention cholesterol normal values and its products. Add a note on key enzyme in synthesis.

3. Products obtained from all aromatic amino acids. Add a note on PKU and alkaptonuria.

4. Anaerobic glycolysis

5. Ketosis

VERY SHORTS

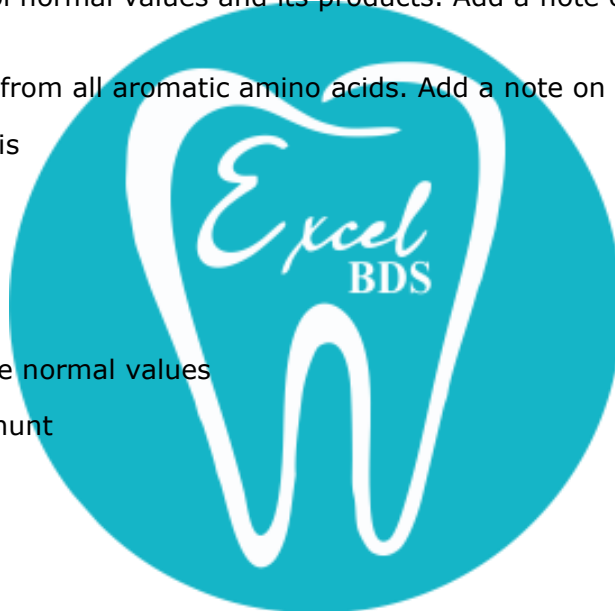
6. Urea and creatinine normal values

7. Products of HMP shunt

8. Glutathione

9. Glycosuria

10. HDL and LDL



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DENTAL ANATOMY & ORAL HISTOLOGY

LONG ESSAY

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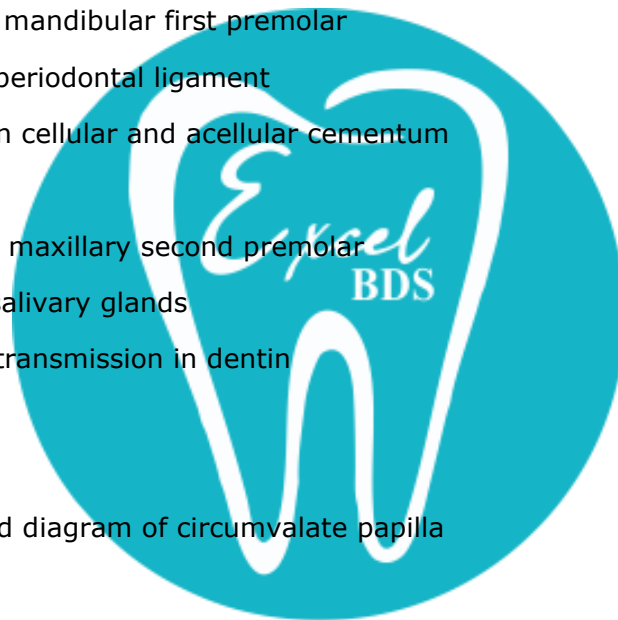
1. Classify oral mucous membrane and write in detail about keratinized mucosa
2. Describe the morphology of permanent Maxillary First premolar in detail

SHORTS

3. Nonkeratinocytes
4. salient features of mandibular first premolar
5. Principle fibers of periodontal ligament
6. Difference between cellular and acellular cementum
7. Zones of pulp
8. Salient features of maxillary second premolar
9. Ductal system of salivary glands
10. Theories of pain transmission in dentin

VERY SHORTS

11. Draw neat labeled diagram of circumvalate papilla
12. Types of CEJ
13. Plexus of Raschkow
14. Cell rests of malassez
15. write any four difference between serous and mucous acini
16. Define ridge and give examples
17. Write four salient features of myoepithelial cell
18. Gingival col
19. Bundle bone
20. Interglobular dentin



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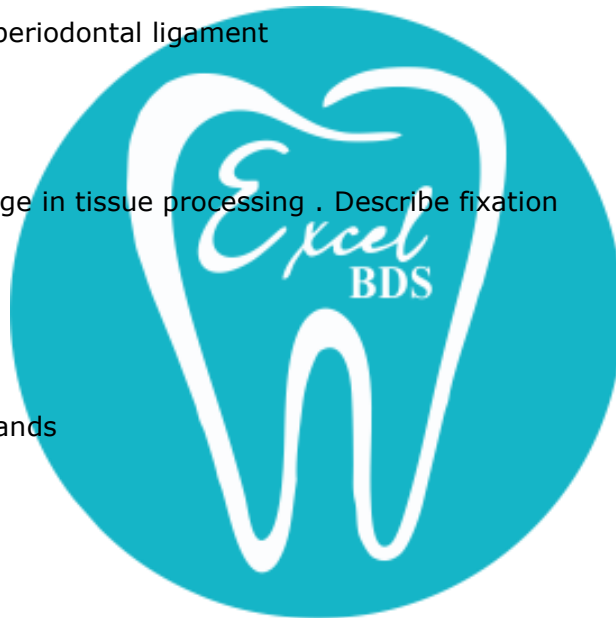
1. Describe the chronology and morphology of different aspects of permanent maxillary right canine
2. Enumerate the hypocalcified structures in enamel . Describe the stages in the life cycle of ameloblasts in detail

SHORTS

3. Principal fibers of periodontal ligament
4. Types of dentin
5. Functions of saliva
6. Enumerate the stage in tissue processing . Describe fixation
7. Non keratinocytes

VERY SHORTS

8. Hunter schreger bands
9. Basket cells
10. Lamina propria
11. Tetany
12. Enumerate cell layers in keratinized epithelium
13. Cell rests of malassez



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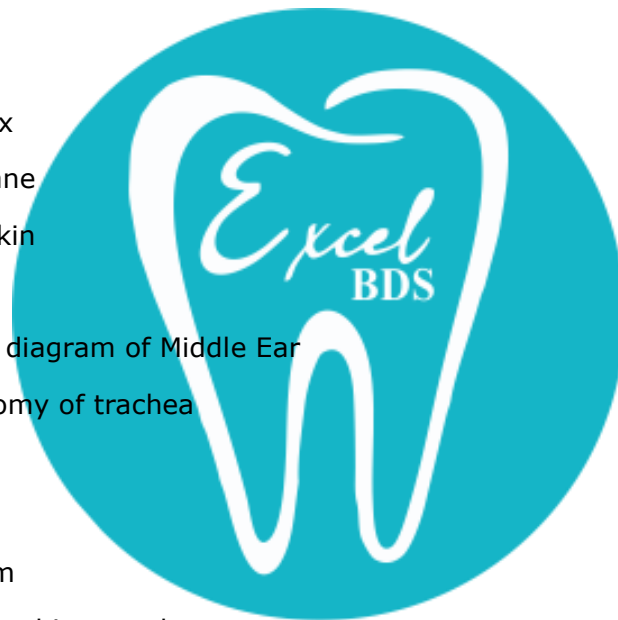
1. Write about Mandibular nerve in detail
2. Write in detail about tongue. Add a note on its development and applied aspect.

SHORTS

3. Ear ossicles
4. Masseter muscle
5. Cartilages of larynx
6. Tympanic membrane
7. Histology of thin skin
8. Pharyngeal arches
9. Draw neat labeled diagram of Middle Ear
10. Microscopic anatomy of trachea

VERY SHORTS

11. Foramen magnum
12. Mastoid process and its attachments
13. Vocal cords
14. Killian's dehiscence
15. Lateral pterygoid muscle
16. Branches of first part of maxillary artery
17. Oblique facial cleft
18. Pyriform fossa
19. Histology diagram of thick skin
20. Divisions of pharynx



GOVT.DENTAL COLLEGE,AURANGABAD

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GENERAL HUMAN PHYSIOLOGY

LONG ESSAY

1 X 10 = 10 Marks

1. Define cardiac cycle. Describe events in the cardiac cycle in relation to pressure & volume changes in atria & ventricles

OR

Enumerate the hormone of endocrine pancreas. Give the detail account of actions and regulation of insulin with applied aspects.

SHORTS

1. Deglutition
2. Actions of thyroid hormones
3. Composition and functions of saliva
4. Counter current Mechanism
5. Conductive system of the heart



BIOCHEMISTRY

LONG

1. Define Glycolysis. Describe pathway of Glycolysis in detail along with its Energetics.

OR

Describe steps in urea cycle. Add a note on disorders of urea cycle

SHORTS

1. Significance of HMP shunt
2. Role of Glycine
3. Transamination reaction and its significance
4. Cori's cycle
5. Gout

GOVT.DENTAL COLLEGE

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ANATOMY

LONG ESSAY

1 X 10 = 10 Marks

1. Describe temporomandibular joint under following headings

(a) Type and Articulation

(b) Ligaments

(c) Movements and muscles producing them

(d) Applied anatomy

SHORTS

1. Draw a well labelled diagram of histology of PAROTID gland

2. Enumerate the derivatives of second pharyngeal arch

3. Blood and nerve supply of scalp

4. Applied Anatomy of lacrimal Apparatus

5. Extracranial course of facial nerve and its applied anatomy

6. Boundaries and content of carotid triangle

LONG

1. Describe tongue under following headings

(a) Gross anatomy and muscles

(b) Nerve supply

(c) Histology

(d) Development and its Anomalies

SHORTS

1. Otic ganglion

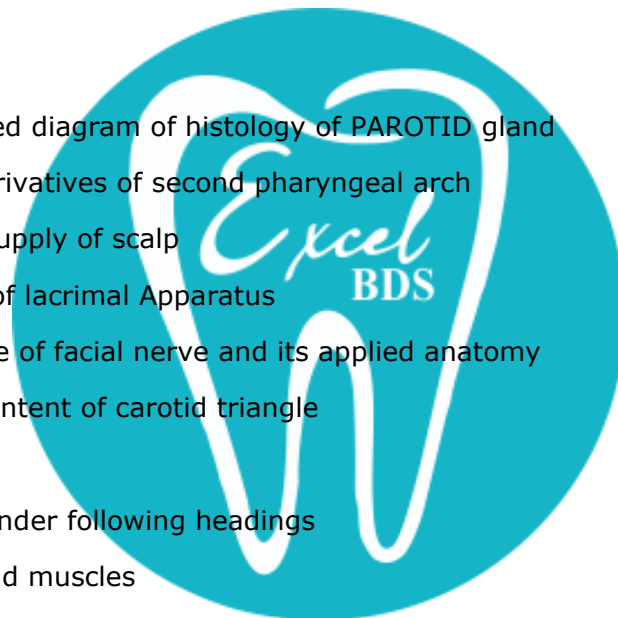
2. Styloid Apparatus

3. Applied anatomy of thyroid gland

4. Histology of lung

5. Development of tooth

6. Investing layer of deep cervical fascia



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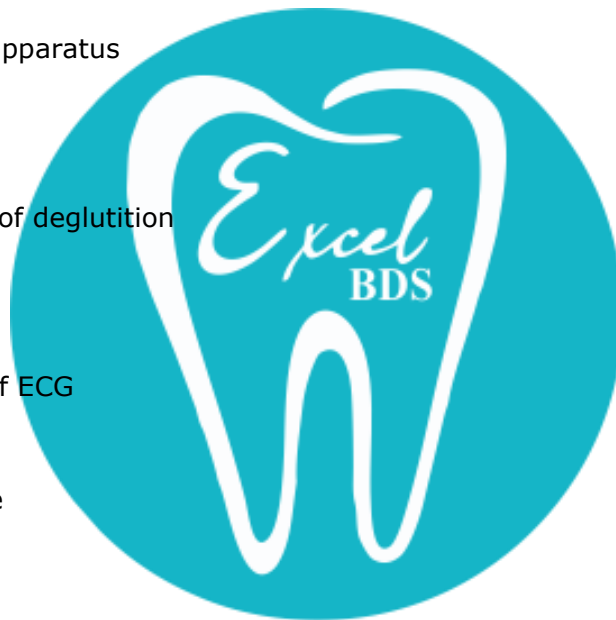
1. Define cardiac output . Describe the factors affecting cardiac output. Explain one method of determining cardiac output.

SHORTS

2. Juxta glomerular apparatus
3. Micturition reflex
4. Functions of liver
5. Pharyngeal phase of deglutition

VERY SHORTS

6. Labeled diagram of ECG
7. Dietary fibers
8. Glomerular Filtrate
9. Peptic ulcer
10. Baro receptors



GSL DENTAL COLLEGE
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ANATOMY

LONG ESSAY

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1. Describe the features in the lateral wall of nasal cavity ? Give its blood supply and nerve supply ? Add a note on applied anatomy ?
2. Describe the origin , course and branches and distribution of facial nerve ? Add a note on applied Anatomy?

SHORTS

3. Histology of mixed salivary gland
4. Spermatogenesis
5. Auditory tube
6. Ciliary ganglion
7. Rima glottidis
8. Inferior alveolar nerve
9. Muscles of soft palate
10. Cervical vertebra



VERY SHORTS

11. Portal triad
12. Well labelled Diagram of superior orbital fissure
13. Well labelled Diagram of mature graffian follicle
14. Safety muscle of larynx
15. Contents of sub-occipital triangle
16. Relation of hyoglossus muscle
17. Taste buds
18. Islets of langerhans
19. Middle Meningeal artery
20. Oblique line of thyroid cartilage

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ESSAY

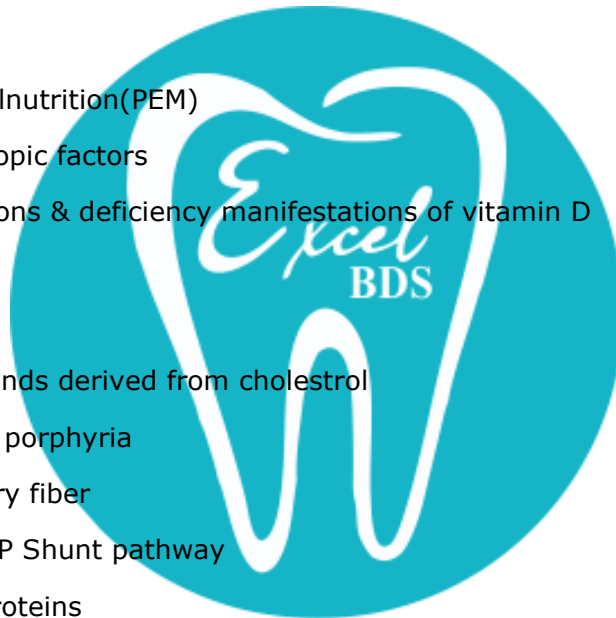
1. Describe Glycogenesis & Glycogenolysis & their reciprocal regulation. Add a note on glycogen storage disorders

SHORTS

2. Ketosis
3. Protein energy malnutrition(PEM)
4. Fatty liver & lipotropic factors
5. Biochemical functions & deficiency manifestations of vitamin D

VERY SHORTS

6. Important compounds derived from cholesterol
7. Acute intermittent porphyria
8. Functions of Dietary fiber
9. Significance of HMP Shunt pathway
10. Function of lipoproteins



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DENTAL ANATOMY & DENTAL HISTOLOGY

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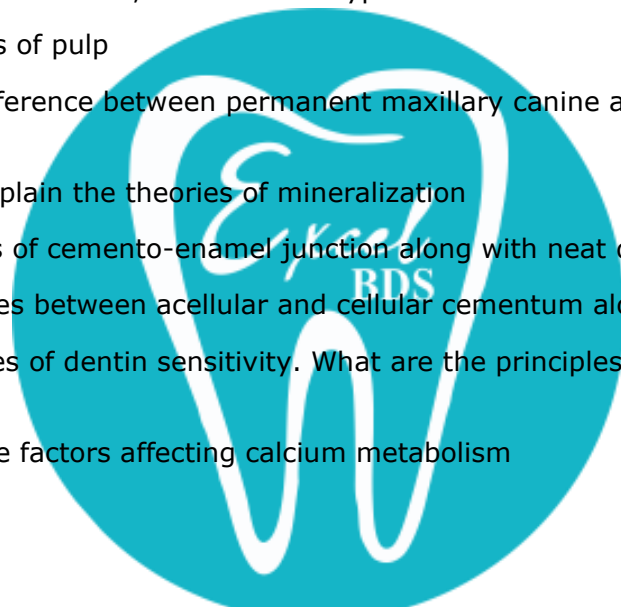
1. Define bone. classify bone. Describe the histology of the alveolar bone.
2. Describe Mandibular second premolar from all the aspects with neat diagrams . Add a note on chronology .

SHORTS

3. Write composition of dentin , Describe the hypocalcified structures of dentin
4. Describe the zones of pulp
5. Enumerate the difference between permanent maxillary canine and permanent mandibular canine
6. Enumerate and explain the theories of mineralization
7. Describe the types of cemento-enamel junction along with neat diagram
8. Tabulate differences between acellular and cellular cementum along with neat diagram
9. Explain the theories of dentin sensitivity. What are the principles underlying their treatment
10. Write in detail the factors affecting calcium metabolism

VERY SHORTS

11. What are the types of stem cells present in the pulp and their potential applications
12. Name the structures seen in the ground section.
13. Draw a neat diagram of Osteoclasts and label it
14. Write the types of pulp stones
15. What is an osteodentin?



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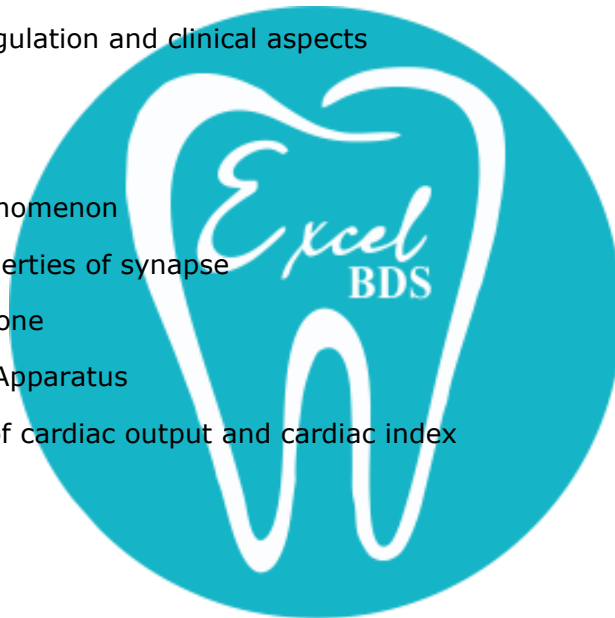
1. ECG . Definition, Einthovens law and triangle , leads , plot and explain the waves segments and intervals in lead 2 with clinical aspects

SHORTS

2. Thyroid hormone Mechanism of action functions and clinical aspects
3. Renal clearance definition formulae explain how it is used to calculate Glomerular filtration rate and renal plasma flow
4. HCL production regulation and clinical aspects

VERY SHORTS

5. Phantom limb phenomenon
6. Explain any 2 properties of synapse
7. Anti diuretic Hormone
8. Juxta-Glomerular Apparatus
9. Define and value of cardiac output and cardiac index



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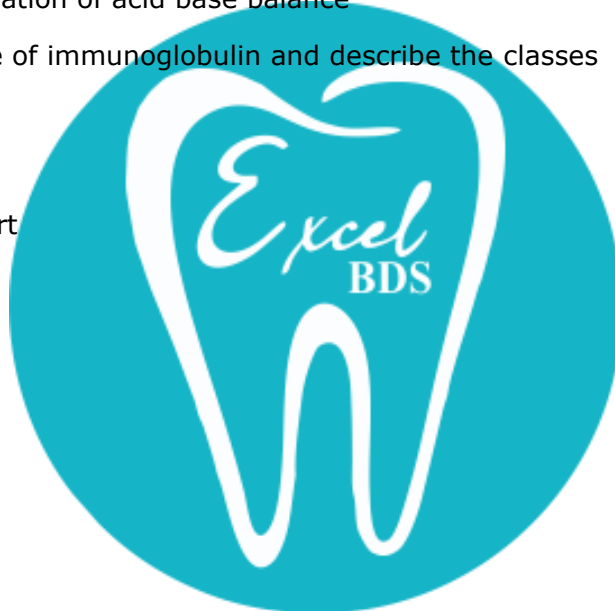
1. Explain the common oxidative pathway add a note on energetic, amphiboloic and anaplerotic nature

SHORTS

2. Write about enzyme specificity
3. Explain renal regulation of acid base balance
4. Draw the structure of immunoglobulin and describe the classes

VERY SHORTS

5. Iso-hydric transport
6. Iso-enzymes
7. Chylomicrons
8. Genuvalgum
9. Hemocromatosis



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ESSAYS

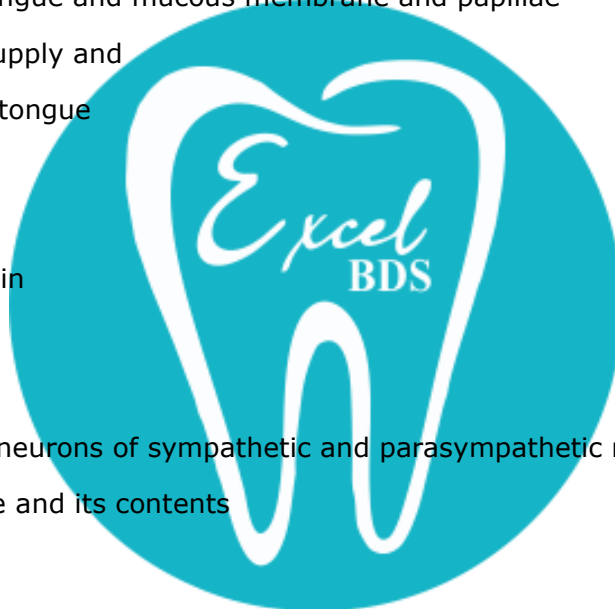
1. Enumerate the Dural venous sinus . Describe the gross anatomy of cavernous venous sinus and its tributaries. Add a note on its applied anatomy
2. Describe the tongue under the following headings:
 - .Gross anatomy of tongue and mucous membrane and papillae
 - .Mention the nerve supply and
 - .Development of the tongue

SHORTS

1. Internal jugular vein
2. Circle of willis
3. Accessory nerve
4. Location of motor neurons of sympathetic and parasympathetic nervous system
5. Subclavian triangle and its contents

VERY SHORTS

1. Cisterna
2. Vertebral artery
3. Sensory ganglia
4. Nerve supply of Digastric muscle
5. Derivatives of First Pharyngeal Arch
6. Oblique facial cleft
7. Histology of Thyroid gland
8. Cervical sinus
9. Tuberculum impar



**DR. SUDHA & NAGESWARA RAO SIDDHARTHA INSTITUTE OF
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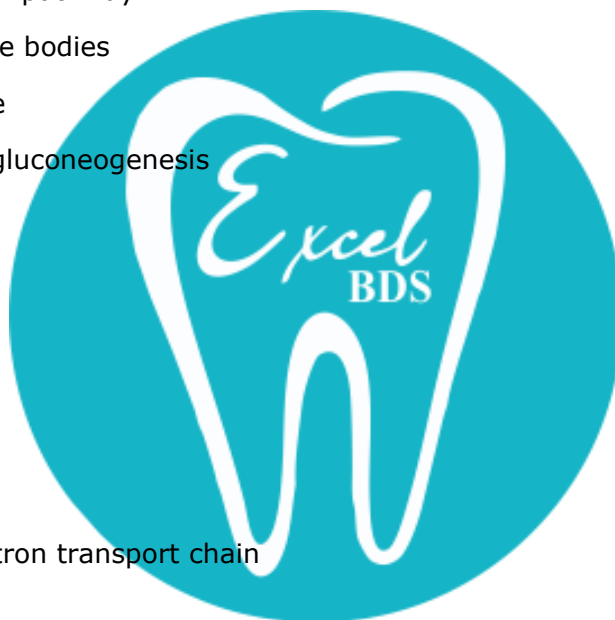
1. Write the dietary sources , RDA, Absorption and transport and disorders associated with iron

SHORTS

2. Significance of HMP pathway
3. Synthesis of ketone bodies
4. Steps of urea cycle
5. Four key steps in gluconeogenesis

VERY SHORTS

6. Functions of HDL
7. Tetany
8. Renal glycosuria
9. Alkaptonuria
10. Inhibitors of electron transport chain



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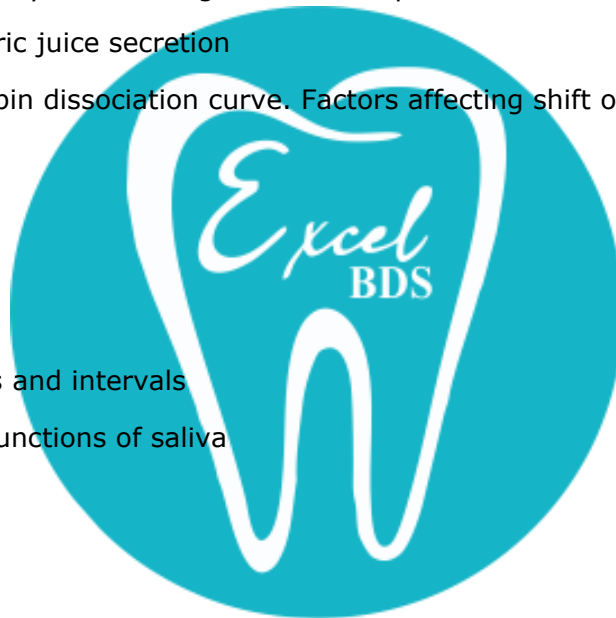
1. Define blood pressure. Describe regulation of blood pressure with neat labelled diagram

SHORTS

2. Define shock. Classify shock and give two examples to each
3. Regulation of gastric juice secretion
4. Oxygen haemoglobin dissociation curve. Factors affecting shift of ODC curve
5. Surfactant

VERY SHORTS

6. Functions of bile
7. ECG normal waves and intervals
8. Composition and functions of saliva
9. Vital capacity
10. Peristalsis



KIMS DENTAL COLLEGE
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DENTAL ANATOMY & DENTAL HISTOLOGY

LONG ESSAY

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1. Write the microscopic ultrastructure of enamel , course of enamel rods and elaborate Amelogenesis
2. Describe the morphological aspects of maxillary first premolar . Add a note on its chronology and morphological variations.

SHORTS

3. Mechanisms and theories of Mineralization
4. Labial aspect of 23. List the differences between Maxillary and Mandibular canines
5. Discuss composition of cementum & types of CEJ
6. Discuss pulp stones and vasculature of pulp
7. Differences between cellular and Acellular cementum
8. Elaborate histology of Alveolar bone with a neat diagram
9. Principal fibre groups of periodontal Ligaments. Their course and functions
10. Theories of Dental Hypersensitivity

VERY SHORTS

11. Contents of cell free zone & its significance
12. Sharpeys fibres & Oxytalan fibers
13. Factors affecting cementogenesis
14. "A" Delta fibers & koff's fibers
15. Lamina Dura
16. Organic and inorganic composition of Enamel ,Dentin, Cementum &bone
17. Aprismatic enamel
18. Explain the structure of Hydroxy Apptite crystal with a neat diagram
19. Dead tracts Vs Sclerotic Dentin .List their appearance in various sources of light
20. Developmental grooves and developmental depressions in premolars



**DR. SUDHA AND NAGESHWARA RAO SIDDHARTHA INSTITUTE OF
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DENTAL ANATOMY & DENTAL HISTOLOGY

LONG ESSAY

1 X 10 = 10 Marks

1. Discuss histology and function of pulp

SHORT

2. Difference between cellular & Acellular cementum
3. Hypo calcified structures of Enamel
4. Occlusal aspect of Maxillary First Premolar
5. Age changes of Dentin

VERY SHORTS

6. Enamel Proteins
7. Difference between Maxillary and Mandibular canine
8. Tomes granular layer
9. Sharpeys fibers
10. Vonkorff's fibers



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ANATOMY

LONG ESSAY

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1. Classify the dural venous sinuses. Describe the cavernous sinus under following headings

- (a) Location & extent
- (b) Relation and structures in the sinus
- (c) Communication and tributaries
- (d) Clinical significance

SHORTS

- 2. Extra ocular muscles –Origin ,insertion , nerve supply, action
- 3. Tentorium cerebelli
- 4. Microscopic structure of salivary glands
- 5. First pharyngeal arch derivatives

VERY SHORTS

- 6. Blood supply of thyroid gland
- 7. Nerve supply of parotid gland
- 8. Microscopic structure of tongue
- 9. Four derivatives of neural crest cells
- 10. Four parts of temporal bone



AL AMEEN DENTAL COLLEGE

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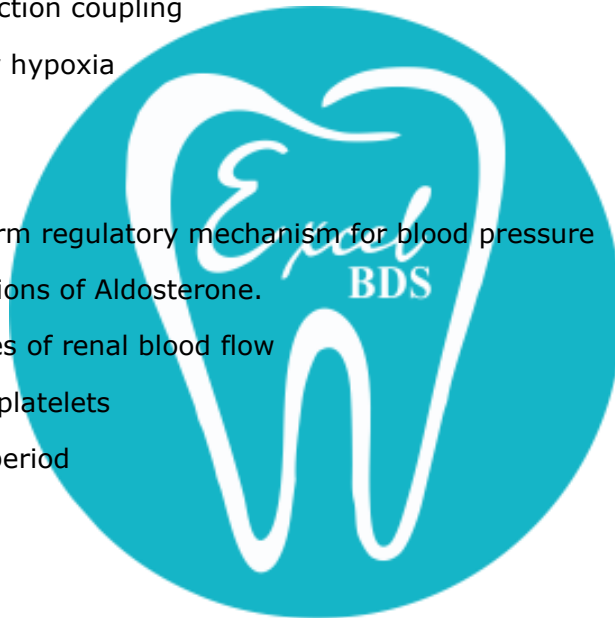
1. Describe the synthesis ,Action and regulation of secretion of thyriod hormone

SHORTS

2. Describe mechanism of secretion of gastric HCL
3. Excitation –Contraction coupling
4. Define and classify hypoxia

VERY SHORTS

5. Name the short term regulatory mechanism for blood pressure
6. Mention four functions of Aldosterone.
7. Write 4 peculiarities of renal blood flow
8. Write functions of platelets
9. Define refractory period



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BIOCHEMISTRY

LONG ESSAY

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1. Describe urea cycle

SHORTS

2. Sources , Functions and daily requirement of Vitamin A
3. Blood glucose regulation
4. Classification of lipids

VERY SHORTS

5. Functions of vitamin D
6. Name ketone bodies
7. Functions of Vitamin E
8. Essential fatty acids
9. Phenylketonurea



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ANATOMY

LONG ESSAY

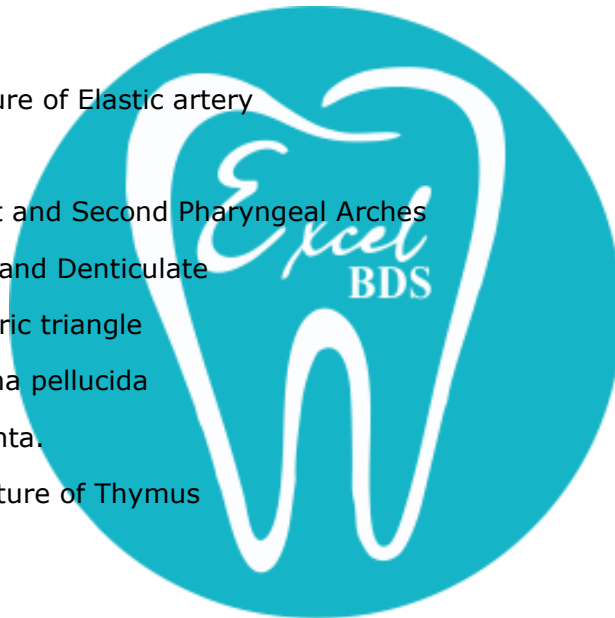
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ESSAY

1. Describe suboccipital triangle in detail.
2. Describe external carotid artery in detail- Origin, course, branches and applied Anatomy

SHORTS

3. Microscopic structure of Elastic artery
4. Primitive streak
5. Derivatives of First and Second Pharyngeal Arches
6. Sutures – Serrate and Denticulate
7. Contents of Digastric triangle
8. Significance of Zona pellucida
9. Functions of placenta.
10. Microscopic structure of Thymus



VERY SHORTS

11. Structures passing through foramen magnum
12. Orbicularis Oculi.
13. Nasolacrimal Duct.
14. Transitional Epithelium.
15. End arteries.