

FIRST YEAR BDS DEGREE EXAMINATION (RS & RS2) FEBRUARY 2021

Time: 2 Hours

Biochemistry Nutrition & Dietics

Q.P. Code: 2003 & 2103

Max. Marks: 35

Objective Instructions	Subjective Instructions
<ul style="list-style-type: none"> • Each question is followed by four options. • Pick up single best option and darken appropriate circle in OMR Sheet • Each question carries one mark. No negative marking 	<ul style="list-style-type: none"> • Answers should be specific to the Questions asked. • Draw neat, labeled diagrams wherever necessary.

1) M.C.Q. 10 X 1 = 10

- Denaturation of proteins results in

(A) Disruption of primary structure	(B) Breakdown of peptide bonds
(c) Increased solubility of proteins	(D) Loss of biological activity
- The most abundant immunoglobulin in plasma is

(A) IgA	(B) IgG
(c) IgM	(D) IgD
- Dental caries can be prevented by

(A) Calcium	(B) Fluoride
(c) Iodine	(D) Phosphorous
- Tetany is associated with following condition

(A) Hypocalcemia	(B) Hypercalcemia
(c) Hyperparathyroidism	(D) Renal Rickets
- The following nucleotide acts as a second messenger in eliciting hormone action :

(A) S-Adenosyl Methionine	(B) Phosphoadenosyl phospho sulfate
(c) Nicotinamide adenine dinucleotide	(D) Cyclic -AMP
- Anticodon on t-RNA is complimentary to the triplet codon on :

(A) r-RNA	(B) m-RNA
(c) hn-RNA	(D) t-RNA
- The ratio of bicarbonate to carbonic acid which signifies the alkali reserve is :

(A) 20:01	(B) 10:01
(c) 4:01	(D) 1:04
- Long chain fatty acids penetrate the inner mitochondrial membrane

(A) Freely	(B) As acyl-CoA derivative
(c) As carnitine derivative	(D) With the help of Sodium dependent carrier
- The functionally active form of Vitamin D is :

(A) Cholecalciferol	(B) Ergocalciferol
(c) 7-Dehydrocholesterol	(D) Calcitriol
- Vitamin synthesized by bacteria in the intestine is

(A) A	(B) C
(c) D	(D) K

LONG ESSAY QUESTIONS: 1 X 10 = 10

- Describe how Acetyl CoA is completely oxidized via Krebs's Cycle. Add a note on energetics of Citric acid cycle. (8+2)

SHORT ANSWER QUESTIONS: 5 X 3 = 15

- Mention three functions of Albumin
- Describe any three functions of nucleotides.
- What is competitive inhibition. Give one example.
- Define Basal Metabolic Rate (BMR). Enumerate any two factors influencing BMR (
- Normal serum levels of Total Protein and Albumin, and A:G ratio.

FIRST YEAR BDS DEGREE EXAMINATION (RS & RS2) FEBRUARY 2021

Time: 3 Hours

Dental Anatomy, Embryology & Oral Histology

Q.P. Code: 2004 & 2104

Max. Marks: 70

Objective Instructions	Subjective Instructions
<ul style="list-style-type: none"> • Each question is followed by four options. • Pick up single best option and darken appropriate circle in OMR Sheet • Each question carries one mark. No negative marking 	<ul style="list-style-type: none"> • Answers should be specific to the Questions asked. • Draw neat, labeled diagrams wherever necessary.

1) M.C.Q. 20 X 1 = 20

1. The bud, cap and bell stage of the developing tooth are based on growth of the

(A) Stellate reticulum	(B) Dental papilla
(c) Enamel organ	(D) Dental sac
2. The percentage of inorganic matter in fully developed enamel is

(A) 66%	(B) 76%
(c) 86%	(D) 96%
3. The dentin adjacent to the dentinoenamel junction is called the

(A) Mantle dentin	(B) Circumpulpal dentin
(c) Predentin	(D) Secondary dentin
4. Migration of odontoblasts into dentinal tubules occurs during

(A) Cavity preparation	(B) Dehydration
(c) Water irrigation	(D) Laser treatment
5. Weils zone of the pulp is

(A) Cell degenerated zone	(B) Cell rich zone
(c) Cell regenerated zone	(D) Cell free zone
6. Acellular cementum is found in which of the following area?

(A) Cervical and middle 3rd of root	(B) Apical 3rd of root
(c) Only in furcation areas	(D) Only in cervical areas
7. Which of the following surrounds an apical foramen?

(A) Cementum always	(B) Dentin always
(c) Cementum and dentin	(D) Cementum and enamel
8. Group of fibers, which predominantly resists the masticatory forces

(A) Dentogingival	(B) Trans septal
(c) Oblique	(D) Horizontal
9. The calcified mass found in the Periodontal Ligament are

(A) Cementicles	(B) Denticles
(c) Siololith	(D) Osticles
10. Development of supporting tissues of the tooth is initiated by

(A) Cells of dental follicle	(B) Cells of dental papilla
(c) Cementoblasts	(D) Cells of the gingival
11. Organ of chievitz is seen near the

(A) Medial surface of the mandible	(B) Nasopalatine foramen
(c) lateral surface of maxilla	(D) Foramen caecum
12. Normal interincisal distance is

(A) 28 mm	(B) 38 mm
(c) 48 mm	(D) 58 mm
13. Fibres which continue from bone to ligament are

(A) Sharpeys fibres	(B) Tomes fibres
(c) Rays fibres	(D) oxytalan fibres
14. Intercellular Bridges in Stratum spinosum are

(A) Hemidesmosomes	(B) Desmosomes
(c) Tonofilaments	(D) Odland bodies

15. The general sensation of anterior two third of the tongue is by
 (A) Trigeminal nerve (B) Facial Nerve
 (c) Glossopharyngeal nerve (D) Occiptal nerve
16. In resorption of roots of the primary teeth, the dental pulp
 (A) Plays a passive role (B) Becomes a fibrotic non-vital mass
 (c) Initiates resorption from the inner surface (D) Aids in formation of secondary dentin slowing down resorption of roots
17. Muscles of mastication develop from
 (A) First branchial arch (B) Second branchial arch
 (c) Third branchial arch (D) Fourth branchial arch
18. Decidious Teeth erupt in following sequence
 (A) Posterior to anterior (B) Anterior to posterior
 (c) Mesial to distal (D) Palatal to buccal
19. Permanent tooth with smallest mesiodistal dimension ?
 (A) Permanent mandibular central incisors (B) Permanent mandibular lateral incisor
 (c) Permanent maxillary lateral incisor (D) Permamnt maxillary central incisor
20. Which cusp is larger in a permanent maxillary second molar than the permanent maxillary first molar
 (A) Disto-buccal (B) Disto-lingual
 (c) Mesio-buccal (D) Mesio-lingual

LONG ESSAY QUESTIONS: 2 X 10 = 20

2. Give the class traits and set traits of molars. Add a note on chronology of maxillary permanent first molar. (6+4)
3. Enumerate histological stages of tooth development. Write in detail early and advanced bell stage of tooth development. (2+4+4)

SHORT ANSWER QUESTIONS: 10 X 3 = 30

4. Age changes of enamel
5. Describe Tomes process
6. Draw a well labeled diagram of Dentinal tubules
7. Discuss the regressive changes seen with aging pulp.
8. Discuss Resorptive cells of periodontal ligament
9. Write in brief about Papillae of tongue
10. Write in brief about Von-Ebner glands
11. Write in brief about Myoepithelial cells
12. Write in brief about Eruptive physiological phase of tooth movement
13. Write the structure of Maxillary sinus

FIRST YEAR BDS DEGREE EXAMINATION (RS & RS2) FEBRUARY 2021

Time: 3 Hours General Human Anatomy including Embryology, Osteology and Histology Q.P.

Code: 2001&2101

Max. Marks: 70

Objective Instructions	Subjective Instructions
<ul style="list-style-type: none"> • Each question is followed by four options. • Pick up single best option and darken appropriate circle in OMR Sheet • Each question carries one mark. No negative marking 	<ul style="list-style-type: none"> • Answers should be specific to the Questions asked. • Draw neat, labeled diagrams wherever necessary.

1. MCQ 20 X 1 = 20

- The muscle of mastication that takes origin from maxilla is
 - Temporalis
 - Masseter
 - Medial pterygoid
 - Lateral pterygoid
- Diaphragm sellae related to
 - Pituitary gland
 - Thyroid gland
 - Adrenal gland
 - Parathyroid gland
- Maxillary sinus opens into
 - Sphenoidal recess
 - Superior meatus
 - Middle meatus
 - Inferior meatus
- Optic canal transmits
 - Optic nerve
 - Frontal nerve
 - Supraorbital nerve
 - Supra trochlear nerve
- Sigmoid sinus continues as
 - Internal jugular vein
 - External jugular vein
 - Subclavian vein
 - Brachiocephalic vein
- Superior thyroid artery is a branch of
 - Internal carotid artery
 - External carotid artery
 - Thyrocervical trunk
 - Subclavian artery
- Waldeyer's ring is formed by following tonsils
 - Palatine
 - Tubal
 - Lingual
 - All of the above
- Duct of Rivinus concerned with -----
 - Sublingual gland
 - Parotid gland
 - Submandibular gland
 - None of the above
- The Meckel's cartilage forms all of the following structures except
 - Malleus
 - Incus
 - Sphenomandibular ligament
 - Greater cornu of hyoid bone
- The head of spermatozoa is called
 - Basal body
 - Acrosomal cap
 - Axoneme
 - Annulus
- All of the following are examples of white fibrocartilage except:
 - Intervertebral discs
 - Articular cartilage of TMJ
 - Cartilage of pinna of the ear
 - Acetabular labrum
- All of the following are the examples of the fibrous joint except
 - Suture
 - Syndesmosis
 - Symphysis
 - Gomphosis
- Pars nervosa develop from
 - Rathke's pouch
 - 1st pharyngeal pouch
 - 2nd pharyngeal pouch
 - Down growth arising from floor of the 3rd ventricle (diencephalon)
- The bone forming the roof of the middle ear cavity is -----
 - Arcuate eminence.
 - Tegmen tympani.
 - Tympanic plate.
 - Tympano mastoid sheath.

15. Nerve to mylohyoid is a branch of-----
 (A) Inferior alveolar nerve. (B) Lingual nerve.
 (c) Buccal nerve. (D) Chorda tympani nerve.
16. Safety muscle of the tongue is -----
 (A) Palatoglossus. (B) Styloglossus.
 (c) Genioglossus (D) Chondroglossus.
17. Maxillary sinus opens into
 (A) Middle meatus (B) Inferior meatus
 (c) Superior meatus (D) Sphenoethmoidal recess
18. The cranial nerve passing through the cavity of cavernous sinus is -----
 (A) Oculomotor nerve. (B) Trochlear nerve.
 (c) Abducent nerve. (D) Maxillary nerve.
19. One of the following is not a branch of the vertebral artery-----
 (A) Posterior spinal artery. (B) Anterior spinal artery
 (c) Posterior inferior cerebellar artery. (D) Posterior communicating artery
20. Sylvian point corresponds to -----
 (A) Asterion. (B) Glabella.
 (c) Pterion. (D) Prognathion.

LONG ESSAY QUESTIONS: 2 X 10 = 20

2. Describe parotid gland under the following headings: a) capsules b) external features c) structures piercing it d) Applied anatomy (2 + 4 + 2 + 2)
3. Describe the temporo –mandibular joint under the following headings: a) Articular surfaces with ligaments b) Movements c) Applied Anatomy (4 + 4 + 2)

SHORT ANSWER QUESTIONS: 10 X 3 = 30

4. Mention the importance of Dangerous area of scalp.
5. Name the branches of the mandibular nerve.
6. Structures passing through foramen magnum.
7. Name the meninges
8. Describe the steps of spermatogenesis
9. Write the derivatives of pharyngeal pouches
10. Histology of thick skin.
11. Histology of thyroid gland.
12. Muscles of the soft palate
13. Branches of External Carotid artery

FIRST YEAR BDS DEGREE EXAMINATION (RS & RS2) FEBRUARY 2021

Time: 2 Hours

General Human Physiology – I

Q.P. Code: 2002 & 2102

Max. Marks: 35

Objective Instructions	Subjective Instructions
<ul style="list-style-type: none"> • Each question is followed by four options. • Pick up single best option and darken appropriate circle in OMR Sheet • Each question carries one mark. No negative marking 	<ul style="list-style-type: none"> • Answers should be specific to the Questions asked. • Draw neat, labeled diagrams wherever necessary.

1) M.C.Q. 10 X 1 = 10

- Resting membrane potential is also referred to as:

(A) Equilibrium potential	(B) Generator potential
(c) Steady potential	(D) Spike potential
- At neuromuscular junction, one nerve fiber ends on ----- motor end plate:

(A) One	(B) Three
(c) Five	(D) Many
- Haemophilia is

(A) Autosomal dominant disorder	(B) Autosomal recessive disorder
(c) X linked recessive disorder	(D) X linked dominant disorder
- Hormone that causes contraction of the gall bladder is

(A) Glucagon	(B) Gastrin
(c) Cholecystokinin	(D) Bradykinin
- The Tm value for glucose in adult male is:

(A) 175 mg/min.	(B) . 275 mg/min
(c) 375 mg/min	(D) 475 mg/min
- Which one plays a major role in coordinating motor activity?

(A) Thalamus	(B) Hypothalamus
(c) Cerebellum	(D) Basal ganglia
- Foot plate of stapes covers

(A) Round window	(B) Oval window
(c) Both A nd B	(D) None of the above
- Correction fro Myopia is

(A) Concave Lenses	(B) Convex Lenses
(c) Cylindrical lenses	(D) all of the above
- ACTH stimulates the secretion of:

(A) Antidiuretic hormone	(B) Cortisol
(c) Calcitonin	(D) Noradrenalin
- Mineralocorticoid hormone is

(A) Aldosterone	(B) Cortisol
(c) Corticosterone	(D) Prednisone

LONG ESSAY QUESTIONS: 1 X 10 = 10

2. Define Blood Pressure. Explain the factors controlling blood pressure. Explain short & long term regulation of Blood Pressure.

SHORT ANSWER QUESTIONS: 5 X 3 = 15

- Regulation of erythropoiesis
- Explain the mechanism of action of any two GI hormones
- Define Frank Starling's Law of Heart.
- Describe the structure of organ of corti
- Explain the physiological functions of thyroid hormones.

