

BDS Ist PROFESSIONAL EXAMINATION 2008-09

Subject Code: BDS – 101

Paper ID: 311101

General Human Anatomy

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A & Part B. Each Part

Carry 35 Marks. Draw proper diagrams to support your answer.

2. Use separate answer book for Part A & Part B.

Part A

- Q.1. Describe functional component, nucleus, course, branches & applied of Mandibular Nerve. (8)
- Q.2. Describe muscles, lymphatic drainage & developmental correlation of nerve supply of tongue. (8)
- Q.3. Write short notes on (3x3=9)
(a) Carotid Triangle
(b) Implantation
(c) Middle Ear
- Q.4. Write the correct answer of following multiple choice questions- (2x5=10)
(1) The nasolacrimal duct opens at
(a) Superior Meatus (b) Middle Meatus
(c) Inferior Meatus (d) None of the above
(2) Skin at the angle of jaw is supplied by
(a) Mandibular Nerve (b) Maxillary Nerve
(c) Greater Auricular Nerve
(d) Transverse Cutaneous Nerve of Neck

- (3) Which of the following cartilage has signet ring shape
(a) Thyroid (b) Cricoid
(c) Cuneiform (d) Arytenoid

- (4) The ANSA cervicalis innervates which muscle
(a) Mylohyoid (b) Cricothyroid
(c) Stylohyoid (d) Sternohyoid

- (5) Foramen Transversarium Transmits
(a) Inf. Jugular Vein (b) Inf. Petrosal Sinus
(c) Sigmoid Sinus (d) Vertebral Artery

Part B

- Q.1. Describe ligaments, muscles, movements & applied of temporomandibular joint. (8)
- Q.2. Enumerate the branches of external carotid artery & describe course, relation & branches of Facial artery. (8)
- Q.3. Write short notes on (3x3=9)
(a) Microanatomy of Thyroid Gland
(b) Cavernous Sinus
(c) ERB's Point
- Q.4. Write the correct answers of the following multiple choice questions- (2x5=10)
(1) Parotid duct opens at
(a) Upper 3rd Molar Teeth
(b) Upper 1st Molar Teeth
(c) Upper 2nd Molar Teeth
(d) Upper 1st Pre Molar Teeth
(2) All are the branches of facial nerve except
(a) Chorda Tympani
(b) Lesser Petrosal Nerve
(c) Greater Petrosal Nerve

SUPPLEMENTARY BDS Ist PROF. EXAMINATION 2008-09

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Paper ID: 311101

General Human Anatomy

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A & Part B. Each Part

**Carry 35 Marks. Draw proper diagrams to support your answer.
2. Use separate answer book for Part A & Part B.**

Part A

- Q.1. Describe functional component & course relations, branches & distribution of extra cranial part of facial nerve add a note on BELL's palsy. (8)
- Q.2. Describe course, relations & branches of maxillary artery. (8)
- Q.3. Write short notes on (3x3=9)
(a) Development Of Thyroid Gland
(b) Trigeminal Neuralgia
(c) Microanatomy Of Parotid Gland
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
(1) Depressor of mandible is
(a) Medial Pterygoid (b) Lateral Pterygoid
(c) Masseter (d) Temporalis
(2) Common carotid artery divides at the level of
(a) Hyoid Bone (b) Cricoid Cartilage
(c) Superior Border Of Thyroid Cartilage
(d) Inferior Border Of Thyroid Cartilage

(d) Nerve To Stadedius

(3) All structures pass through superior orbital fissure except

- (a) Lacrimal Nerve (b) Frontal Nerve
(c) Optic Nerve (d) Nasociliary Nerve

(4) All the muscles are supplied by facial nerve except

- (a) Cevatur Anguli Oris (b) Risorius
(c) Levatur Palpabrae Superioris (d) Corrugatur Supercily

(5) Which of the cranial nerve dellusate within the brain

- (a) Trocfllear (b) Optic
(c) Occulomotor (d) Trigeminal

(3) The actions of superior oblique muscle is all except

- (a) Abduction (b) Intorsion
- (c) Extorsion (d) Depression

(4) Abductor of the vocal cord is

- (a) Cricothyroid (b) Posterior Cricoarytenoid
- (c) Lateral Cricoarytenoid (d) Thyroepiglotticus

(5) Posterior 1/3 of tongue is supplied by

- (a) Hypoglossal N. (b) Chorda Tympani N.
- (c) Lingual N. (d) Glossopharyngeal N.

Part B

Q.1. Enumerate various cranial dural sinuses and describe cavernous sinus and its applied anatomy in detail. (8)

Q.2. Write origin, insertion, nerve supply & actions of muscles of mastication. (8)

Q.3. Write short notes on (3x3=9)

- (a) Floor of IVth Ventricle Of Brain
- (b) Little's Area
- (c) Cubital Fossa

Q.4. Write the correct answers of the following multiple choice questions- (2x5=10)

(1) The first cervical vertebra has all of the following except

- (a) Lateral Mass (b) Sup. & Inf. Articular Facets
- (c) Spinous Process (d) Anterior Arch.

(2) All the muscles form the floor of posterior triangle except

- (a) Sexiispinalls Capitis (b) Longus Colli
- (c) Scaleneus Medius (d) Splenius Capitis

(3) Lacrimal secretion is related with which peripheral parasympathetic ganglion

- (a) Otic (b) Ciliary
- (c) Pterygo Palatine (d) Sub-Mandibular

(4) Posterior most part of tongue is developed from which branchial arch.

- (a) 1st (b) 2nd
- (c) 3rd (d) 4th
- (e) 6th

(5) Stadedius muscle is supplied by

- (a) Facial Nerve (b) Vagus Nerve
- (c) Glossopharyngeal N. (d) Trochlear N.

BDS Ist PROFESSIONAL EXAMINATION 2008-09

Subject Code: BDS – 102

Paper ID: 311102

General Human Physiology & Bio-Chemistry

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A & Part B. Each Part

**Carry 35 Marks. Draw proper diagrams to support your answer.
2. Use separate answer book for Part A & Part B.**

Part A (Physiology)

- Q.1. Define Blood Pressure. Give its normal values and describe how short term regulation of blood pressure takes place. (8)
- Q.2. Enumerate hormones secreted by anterior pituitary. Describe the functions and clinical aspects of Growth Hormone. (8)
- Q.3. Answer briefly about the following: (3x3=9)
- (a) Functions of Saliva
 - (b) Hypoxia
 - (c) Colour blindness
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
- 1. Normal value of WBC count is
 - (a) 4-6 million/mm³
 - (b) 1.5-4.0 lacs/mm³
 - (c) 4000-11000/mm³
 - (d) 500-3000/mm³
 - 2. All are features of Parkinson's disease except
 - (a) Resting tremor
 - (b) Asterognosis

- (c) Rigidity
 - (d) Akinesia
3. Normal value of GFR is
 - (a) 30ml/minute
 - (b) 60ml/minute
 - (c) 125ml/minute
 - (d) 180ml/minute
4. In iron deficiency anaemia, the RBC are
 - (a) Microcytic Hypochromic
 - (b) Macrocytic Hypochromic
 - (c) Normocytic Normochromic
 - (d) Macrocytic Normochromic
5. All Differences are true between Active transport and Facilitated diffusion except
 - (a) Active transport requires energy
 - (b) Active transport occurs against concentration gradient
 - (c) Active transport doesn't usually carry large molecules
 - (d) Active transport doesn't occur against concentration gradient

Part B (Bio-Chemistry)

- Q.1. Describe (4+4=8)
- (a) Glycolysis
 - (b) TCA cycle
- Q.2. (a) Define Enzyme and give their classification (4)
(b) Describe nucleases and give the differences (4)
between DNase and RNase
- Q.3. Write short note on the following (3x3=9)
- (a) Gluconeogenesis
 - (b) Allosteric enzymes
 - (c) Zwitter ions

Q.4. Write the correct answer of the following multiple choice questions-
(2x5=10)

1. Double helical structure of DNA was discovered by
 - (a) Dr Hargobind Singh Khorana
 - (b) Watson and Kirk
 - (c) Malpighi
 - (d) Banting and Best
2. Retinol is the chemical name of
 - (a) Vitamin K
 - (b) Vitamin D
 - (c) Vitamin A
 - (d) Vitamin E
3. Commonest Source of Fluoride is
 - (a) Water
 - (b) Carrot
 - (c) Lemon
 - (d) Cabbage
4. All are fat soluble vitamins except
 - (a) Vitamin A
 - (b) Vitamin B
 - (c) Vitamin C
 - (d) Vitamin D
5. Hypocalcaemia is
 - (a) Low calcium
 - (b) Low potassium
 - (c) Low sodium
 - (d) Low magnesium

BDS Ist PROFESSIONAL EXAMINATION 2008-09

Subject Code: BDS – 102

Paper ID:311102

General Human Physiology & Bio-Chemistry

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A & Part B. Each Part

**Carry 35 Marks. Draw proper diagrams to support your answer.
2. Use separate answer book for Part A & Part B.**

Part A

- Q.1. Enumerate hormones of the Anterior Pituitary gland. Discuss the functions and applied aspect of Growth Hormone. (8)
- Q.2. Brief about the composition and functions of Gastric Juice. How the Gastric Secretion is regulated? (8)
- Q.3. Answer briefly about the following: (3x3=9)
 - (a) Properties of the Cardiac Muscle
 - (b) Colour Blindness.
 - (c) Functions of the WBCs.
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
 - (1) GFR(glomerular filtration rate) is measured by
 - (a) Flick method
 - (b) Inulin clearance
 - (c) Dye dilution method
 - (d) None of the above
 - (2) Peripheral Chemo-receptors are stimulated by
 - (a) ↓ PO₂
 - (b) ↑ PCO₂
 - (c) Acidosis
 - (d) All of the above

(3) Which of the following is not the example of Active transport processes of membrane

- (a) Na^+K^+ AT Pase (b) Ca^{++} Pump
(c) Na^+ leak channel (d) H^+K^+ Pump

(4) Which of the following is responsible for ovulation

- (a) LH surge (b) Oestrogen surge
(c) FSH surge (d) None of the above

(5) Concave lenses are used for the correction of

- (a) Astigmatism (b) Myopia
(c) Hypermetropia (d) Presbyopia

(3) The protein part of conjugated enzyme is

- (a) Holoenzyme (b) isoenzyme
(c) Apoenzyme (d) Co-enzyme

(4) This class of antibodies is made up of five immunoglobulin units

- (a) Ig G (b) Ig M (c) Ig A (d) Ig D

(5) The most commonly used marker enzyme in clinical diagnosis of prostate cancer is

- (a) Amylase (b) Alkaline phosphatase
(c) r_GTPase (d) Acid phosphatase

Part B

Q.1. Define and classify vitamins. State the daily requirement, sources, functions and deficiency manifestations of Ascorbic acid(vitamin C)

(8)

Q.2. Classify enzymes with examples. Discuss Effect of pH, temperature and substrate concentration on enzyme activity.

(8)

Q.3. Answer the following questions (3x3=9)

- (a) Dietary fibres
(b) Diseases with symptoms associated with deficiency and excess of Folic acid
(c) Ketone bodies-formation & utilization

Q.4. Write the correct answer of the following multiple choice questions-

(2x5=10)

(1) During one Krebs' cycle the number of CO_2 molecules released is

- (a) 1 (b) 2 (c) 3 (d) 4

(2) Among the nitrogenous bases involved in DNA & RNA formation the double ring base is

- (a) Uracil (b) Guanine
(c) Thymine (d) Cytosine

SUPPLEMENTARY BDS Ist PROF. EXAMINATION 2008-09

Subject Code: BDS – 102

Paper ID:311102

General Human Physiology & Bio-Chemistry

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A & Part B. Each Part

**Carry 35 Marks. Draw proper diagrams to support your answer.
2. Use separate answer book for Part A & Part B.**

Part A

- Q.1. Define Blood Pressure. What are its components and determinants? Discuss briefly short term regulation of Blood Pressure. (8)
- Q.2. Draw the diagram of Neuro-Muscular (NM) Junction. How the impulse is transmitted through NM Junction? (8)
- Q.3. Answer briefly about the following
- (a) Menstrual (Uterine) Cycle and its hormonal control
 - (b) Hypoxia and its types
 - (c) Functions of the Hypothalamus
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
- (1) Saliva helps in
 - (a) Speech
 - (b) Digestion
 - (c) Swallowing
 - (d) All of the above
 - (2) Colour Vision is the function of
 - (a) Cones
 - (b) Rods
 - (c) Organ of corti
 - (d) Baro-receptors
 - (3) Haemophilia is the deficiency disease of

- (a) Platelets
 - (b) Anti-Haemophilic factor
 - (c) Calcium
 - (d) a Hormone
- (4) Osmolarity of the plasma is about
- (a) 199 mosm/L
 - (b) 350 mosm/L
 - (c) 290 mosm/L
 - (d) 400 mosm/L
- (5) Renin is the hormone secreted by
- (a) Stomach
 - (b) Adrenal gland
 - (c) Placenta
 - (d) Kidney

Part B

- Q.1. Draw complete electron transport chain showing the site of action of various inhibitors. Briefly explain how the transport of electrons in respiratory chain drives the ATP synthesis. Draw a well labeled diagram of human mitochondria. (8)
- Q.2. Differentiate between competitive and non competitive inhibition. Explain the importance of LDH isoenzymes in clinical diagnosis. (8)
- Q.3. Write short notes on the following (3x3=9)
- (a) Structure and function of collagen and elastin.
 - (b) Role of vitamin A in Vision.
 - (c) Regulation of Glycolysis.
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
- (1) One of the chief functions of smooth endoplasmic reticulum is
 - (a) Protein Synthesis
 - (b) Lipid Synthesis
 - (c) Enzyme Production
 - (d) Microtubule Production
 - (2) Naturally occurring amino acids in mammalian tissues have
 - (a) L-Configuration
 - (b) D-Configuration
 - (c) Racemic Mixture
 - (d) β -Confirmation

(3) The number of stop codons which do not code for any amino acid is

- (a) 1 (b) 2 (c) 3 (d) 4

(4) Phenylketonuria is an autosomal recessive disorder located on chromosome

- (a) 17 (b) 16 (c) 12 (d) 11

(5) Pellagra is related to

- (a) Thiamine Deficiency (b) Niacin Deficiency
(c) Pyridoxine Deficiency (d) Riboflavin Deficiency

BDS Ist PROFESSIONAL EXAMINATION 2008-09

Subject Code: BDS – 103

Paper ID:311103

Oral and Dental Anatomy & Histology

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A & Part B. Each Part

**Carry 35 Marks. Draw proper diagrams to support your answer.
2. Use separate answer book for Part A & Part B.**

Part A

- Q.1. Discuss the age changes in pulp and dentin? (8)
- Q.2. Compare and contrast the anatomy of permanent maxillary and mandibular canine? (8)
- Q.3. Write short notes on: (3x3=9)
(a) Vermilion border of lip.
(b) Basket cells.
(c) Occlusion at 9 years of age.
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
- (1) The bell stage of tooth development refers to
(a) Dental lamina
(b) Proliferation
(c) Apposition of dental tissues
(d) Histodifferentiation and morphodifferentiation
(e) None of the above.

- (2) The ameloblasts
- Do not cause the differentiation of odontoblasts
 - Play no role in tissue interdependence
 - Cause the differentiation of dentin forming cells
 - Cause shrinkage of stratum reticulum
 - None of the above.
- (3) The periodontal ligament arises from the
- Cementum
 - Alveolar bone
 - Middle portion of the dental follicle
 - Secondary cementum
 - None of the above
- (4) The largest and longest root canal of maxillary second molar is the
- Lingual
 - Mesiobuccal
 - distobuccal
 - Distal
- (5) The dentinoenamel junction
- Is smooth
 - Is not smooth
 - Has an irregular surface which appears scalloped
 - Consists of only concavities which face both dentin and enamel
 - None of the above.

Part B

- Q.1. Define tooth eruption? Enumerate the various theories of tooth eruption and write in detail about the most accepted theory? (8)
- Q.2. Classify Oral Mucosa? Discuss in detail the histology of keratinized stratified squamous epithelium? (8)

- Q.3. Write short notes on: (3x3=9)
- Enamel Lamellae
 - CEJ
 - Muscles of mastication
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
- (1) Enamel is
- The only tissue whose formation does not cease
 - Made up of 100% inorganic material
 - Made up of 20% organic material
 - The only calcified tissue in mammals of epithelial origin
 - None of the above.
- (2) Maxillary premolars usually erupt between the ages of
- 8 and 9 years
 - 13 and 14 years
 - 9 and 10 years
- (3) Sharpey's fibers
- Arise from Hertwig's root sheath
 - Are collagen fibres of the dental follicle embedded in cementum
 - Arise from the epithelial rests of Malassez
 - None of the above.
- (4) During eruption of permanent teeth, alveolar bone is
- Deposited only
 - Resorbed only
 - Resorbed and deposited intermittently
 - Neither resorbed or deposited.
- (5) The beginning of the dental lamina occurs as
- A thickening of the oral epithelium
 - A thickening of the lamina propria
 - A thickening of the submucosa
 - A downward growth of oral connective tissue
 - None of the above.

SUPPLEMENTARY BDS Ist PROF. EXAMINATION 2008-09

Subject Code: BDS – 103

Paper ID:311103

Oral and Dental Anatomy & Histology

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A & Part B. Each Part

**Carry 35 Marks. Draw proper diagrams to support your answer.
2. Use separate answer book for Part A & Part B.**

Part A

- Q.1. Enumerate the major salivary gland. Describe the light microscopic and ultra-microscopic features of serous acini. (2+6=8)
- Q.2. Write in detail about BELL stage of tooth development. Add a note on Hertwig Epithelial Root Sheath. (5+3=8)
- Q.3. Write briefly on (3x3=9)
- (a) Types of Cementum
 - (b) Occlusal Aspect Of Maxillary First Molar
 - (c) Periodontal Ligament Traction Theory for Tooth Eruption
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
- (1) Cells responsible for tooth resorption during shedding are
 - (a) Odontoclast (b) Osteoclast
 - (c) Cementoclast (d) Fibroblast
 - (2) Which of the following is not a clear cell
 - (a) Melanocytes (b) Endothelial Cells
 - (c) Langerhan's Cells (d) Inflammatory Cells
 - (3) Which Papillae are the most numerous on the tongue

- (a) Circumvallate Papilla (b) Filiform Papilla
 - (c) Fungiform Papilla (d) Foliate Papilla
- (4) Highest Flouride content is observed in
- (a) Enamel (b) Dentin (c) Cementum (d) Alveolar Bone
- (5) Which Protein is unique to circumpulpal dentin
- (a) Tropocollagen (b) Chondroitin-4
 - (c) Phosphoryn (d) Chondroitin-6

Part B

- Q.1. Write in detail about various structural and Histological differences between permanent and deciduous dentition. (8)
- Q.2. What are the functions of Oral Mucosa? Explain in detail about Masticatory Mucosa. (3+5=8)
- Q.3. Write briefly on (3x3=9)
- (a) Principle Fibre Groups of Periodontal Ligament.
 - (b) Types of Dentin
 - (c) Function and Histology of Maxillary Sinus.
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
- (1) Incremental lines of Retzius are present in
 - (a) Enamel (b) Dentin (c) Cementum (d) Alveolar Bone
 - (2) Which is the most common fixative used for Dental Tissues
 - (a) 10% Neutral Formalin (b) 20% Neutral Formalin
 - (c) 50% Neutral Formalin (d) 100% Neutral Formalin
 - (3) The pH of the whole Saliva usually varies from
 - (a) 6.0 To 7.0 (b) 6.4 To 7.4
 - (c) 7.0 To 8.0 (d) 8.2 To 9.2

(4) Linear Elevation present on surface of Tooth is termed as
(a) Cusp (b) Fossa (c) Tubercle (d) Ridge

(5) Which Tooth among the following is usually the first permanent
Tooth appear in the Oral Cavity
(a) Central Incisors (b) First Molars
(c) Lateral Incisors (d) Canines

BDS Ist PROFESSIONAL EXAMINATION 2008-09

Subject Code: BDS – 103

Paper ID:311103

Oral and Dental Anatomy & Histology

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A & Part B. Each Part

Carry 35 Marks. Draw proper diagrams to support your answer.

2. Use separate answer book for Part A & Part B.

Part A

- Q.1. Classify Dentin. Explain in detail the process of Dentinogenesis. Enumerate the various age changes in Dentin. (2+5+1=8)
- Q.2. Write the function of Saliva. Explain in detail the Ductal System of Salivary Glands. (3+5=8)
- Q.3. Write short notes on (3x3=9)
(a) Papillae of the Tongue
(b) Hypocalcified Structures of Enamel
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
Posterior One-Third of Tongue is Innervated by
(a) Vagus (b) Glossopharangeal
(c) Hypoglossal (d) Lingual
- (1) The Muscle responsible for bringing Protrusion of Mandible
(a) Lateral Ptery Goid
(b) Medial Ptery Goid
(c) Masseter
(d) Both Medial and Lateral Ptery Goid

- (2) The Y-Shaped Occlusal pattern appears in
 (a) Mandibular Ist Premolar
 (b) Mandibular IInd Premolar
 (c) Maxillary Ist Premolar
 (d) Maxillary IInd Premolar
- (3) Collagen seen in Basement Membrane is
 (a) Type IV (b) Type VI
 (c) Type VIII (d) Type IX
- (4) In which part of Oral Cavity Mucous Membrane is the thinnest
 (a) Soft Palate (b) Labial Mucosa
 (c) Floor of Mouth (d) Buccal Mucosa

Part B

- Q.1. Compare and contrast Maxillary and Mandibular Canine. (8)
- Q.2. Write in detail about the zones of Pulp. Add a note on Pulp Stones. (6+2=8)
- Q.3. Write short notes on (3x3=9)
 (a) Types of Cementum
 (b) Bell Stage of Tooth Development
 (c) Theories of Mineralization
- Q.4. Write the correct answer of the following multiple choice questions- (2x5=10)
- (1) Dendritic Cells located in Basal Layer are
 (a) Merkel Cells (b) Basket Cells
 (c) Melanocytes (d) Plasma Cells
- (2) Osteogenic Layer of Suture is called as
 (a) Capsule (b) Cambium
 (c) Periosteum (d) Osteoblastic Layer

BDS 2nd PROFESSIONAL EXAMINATION 2009-10

Course Code: BDS201

Paper ID: 0312101

General Pathology and Microbiology

Time: 3 Hours

Max Marks: 70

Note:1. Attempt all questions from Part A and Part B.

**Carry 35 Marks. Draw proper diagrams to support your answer.
 2. Use separate answer book for Part A and Part B.**

Part A

- Classify anaemia. Describe the clinical features and lab diagnosis of iron deficiency anaemia. (8)
- Describe the characteristics and pathological differentiating features between benign and malignant neoplasm. (8)
- Write short notes on (3x3=9)
 (a) Apoptosis
 (b) Granulomatous inflammation
 (c) Megaloblastic anemia
- Choose the correct answer for each question. (2x5=10)
 (a) Term hyperplasia refer to:
 (i) An increase in the number of cells in an organ or tissue.
 (ii) An increase in the size of cells in an organ or tissue
 (iii) Decrease in cell size and number.
 (iv) One differentiated cell type is replaced by another cell type.
 (b) Which of the following is not coagulation factor of intrinsic pathway:
 (i) Factor XII (ii) Factor IX
 (iii) Factor VII (iv) Factor VIII

BDS 2nd PROFESSIONAL EXAMINATION 2009-10

Course Code: BDS201

Paper ID:0312101

General Pathology and Microbiology

Time: 3 Hours

Max Marks: 70

Note:1. Attempt all questions from Part A and Part B. Each Part

**Carry 35 Marks. Draw proper diagrams to support your answer.
2. Use separate answer book for Part A and Part B.**

Part A

1. Classify anaemia. Describe the clinical features and lab diagnosis of iron deficiency anaemia. (8)
2. Describe the characteristics and pathological differentiating features between benign and malignant neoplasm. (8)
3. Write short notes on (3x3=9)
 - (a) Apoptosis
 - (b) Granulomatous inflammation
 - (c) Megaloblastic anemia
4. Choose the correct answer for each question. (2x5=10)
 - (a) Term hyperplasia refer to:
 - (i) An increase in the number of cells in an organ or tissue.
 - (ii) An increase in the size of cells in an organ or tissue
 - (iii) Decrease in cell size and number.
 - (iv) One differentiated cell type is replaced by another cell type.
 - (b) Which of the following is not coagulation factor of intrinsic pathway:
 - (i) Factor XII
 - (ii) Factor IX
 - (iii) Factor VII
 - (iv) Factor VIII

(c) Normal life span of red blood cells is:

- | | |
|----------------|--------------|
| (i) 60 days | (ii) 6 days |
| (iii) 120 days | (iv) 12 days |

(d) In Sickle cell anaemia, the mutation in haemoglobin is at:

- (i) α chain 6 position.
- (ii) α chain 36 position
- (iii) β chain 6 position
- (iv) β chain 36 position

(e) Commonly used stain to identify mycobacterium tuberculosis bacteria is:

- | | |
|--------------------------|-----------------------|
| (i) Gram's stain | (ii) Diff quick stain |
| (ii) Ziehl Neelsen stain | (iv) PAS stain |

Part B

1. Define and classify hypersensitivity reactions. Write in detail about type I hypersensitivity. (8)
2. Write about pathogenic bacteria producing sore throat. Write about laboratory diagnosis of sore throat. (8)
3. Write short notes on: (3x3=9)
 - (a) Life cycle of *Ascaris lumbricoides*.
 - (b) Normal microbial flora of oral cavity
 - (c) Steam as sterilizing agent
4. Differentiate between. (2x5=10)
 - (a) Exo toxin and Endo toxin.
 - (b) Amoebic and bacillary dysentery.
 - (c) Active and passive immunity.
 - (d) Gram positive and Gram negative bacteria.
 - (e) Yeast and Mould.

Paper is used

- (c) Normal life span of red blood cells is:
- (i) 60 days
 - (ii) 6 dyas
 - (iii) 120 days
 - (iv) 12 days

- (d) In Sickle cell anaemia, the mutation in haemoglobin is at:
- (i) α chain 6 position.
 - (ii) α chain 36 position
 - (iii) β chain 6 position
 - (iv) β chain 36 position

- (e) Commonly used stain to identify mycobacterium tuberculosis bacteria is:
- (i) Gram's stain
 - (ii) Diff quick stain
 - (ii) Ziehl Neelsen stain
 - (iv) PAS stain

Part B

1. Define and classify hypersensitivity reactions. Write in detail about type I hypersensitivity. (8)
2. Write about pathogenic bacteria producing sore throat. Write about laboratory diagnosis of sore throat. (8)
3. Write short notes on: (3x3=9)
 - (a) Life cycle of *Ascaris lumbricoides*.
 - (b) Normal microbial flora of oral cavity
 - (c) Steam as sterilizing agent
4. Differentiate between. (2x5=10)
 - (a) Exo toxin and Endo toxin.
 - (b) Amoebic and basillary dysentery.
 - (c) Active and passive immunity.
 - (d) Gram positive and Gram negative bacteria.
 - (e) Yeast and Mould.

Paper is used

SUPPLEMENTARY BDS 2nd PROFESSIONAL EXAMINATION 2009-10

Course Code: BDS201

Paper ID:0312101

General Pathology and Microbiology

Time: 3 Hours

Max Marks: 70

Note:1. Attempt all questions from Part A and Part B. Each Part

**Carry 35 Marks. Draw proper diagrams to support your answer.
2. Use separate answer book for Part A and Part B.**

Part A

1. Describe the types of Diabetes Mellitus and its clinical features and pathological changes in various organs. (8)
2. Describe briefly chemical mediators of inflammation. (8)
3. Write short notes on (3x3=9)
 - (a) Pleomorphic Adenoma
 - (b) Necrosis
 - (c) Thrombosis
4. Choose the correct answer for each question. (2x5=10)
 - (a) Giant cells are commonly found in:
 - (i) Granulomatous inflammation.
 - (ii) Apoptosis
 - (iii)Thrombus
 - (iv)Dystrophic Calcification
 - (b) Reticulocytes are:
 - (i) Immature red blood cells
 - (ii) Immature white blood cells
 - (iii)Immature platelets
 - (iv)None of the above

**SUPPLEMENTARY BDS 2nd PROFESSIONAL
EXAMINATION 2009-10**

Course Code: BDS202

Paper ID:0312102

General and Dental Pharmacology & Therapeutics

Time: 3 Hours

Max Marks: 70

Note:1. Attempt all questions from Part A and Part B. Each Part

**Carry 35 Marks. Draw proper diagrams to support your answer.
2. Use separate answer book for Part A and Part B.**

Part A

1. Enumerate different types of Routes of drug administration. Discuss oral route in detail. (8)
2. Discuss the following in detail: (4x2=8)
 - (a) Bioavailability
 - (b) First pass Metabolism
3. Briefly describe drug treatment of **any three** of the following: (3x3=9)
 - (a) Peptic ulcer
 - (b) Gingivitis
 - (c) Excessive bleeding after tooth extraction
 - (d) Anaphylactic shock after an injection of penicillin.
4. Choose the most appropriate response: (2x5=10)
 - (a) The most frequent side effect of oral ampicillin is:
 - (i) Nausea and vomiting
 - (ii) Constipation
 - (iii) Loose motions
 - (iv) Urticaria
 - b) Gum Hypertrophy can occur as a side effect of:
 - (i) Famotidine
 - (ii) Levodopa

- (c) Polycythemia is characterized by:
 - (i) High red blood cell count
 - (ii) High white blood cell count
 - (iii) High reticulocyte count
 - (iv) High platelet counts
- (d) Hemophilia A is characterized by:
 - (i) Deficiency of platelets.
 - (ii) Deficiency of Factor VIII
 - (iii) Deficiency of Factor IX
 - (iv) Deficiency of von Willebrand factor
- (e) Bacteria causing tuberculosis are:
 - (i) Gram positive cocci
 - (ii) Gram positive bacilli
 - (iii) Gram negative cocci
 - (iv) Gram negative bacilli.

Part B

1. Name the mycobacterium that causes human disease. Briefly describe the steps in the laboratory diagnosis of a case of pulmonary tuberculosis. (8)
2. Define and classify hypersensitivity reactions. Write in detail about type I hypersensitivity. (8)
3. Write short notes on: (3x3=9)
 - (a) Koch's Postulate.
 - (b) Diseases produced by candida in oral cavity
 - (c) Amoebiasis
4. Write in brief: (2x5=10)
 - (a) Bacterial Capsule.
 - (b) Pasteurization.
 - (c) Normal microbial flora of oral cavity.
 - (d) Exotoxin.
 - (e) Swine flu.

- (ii) Phenytoin (iv) Adrenaline
- (b) Action of morphine include the following except:
- (i) Vagal stimulation (ii) Antiemetic
- (ii) Miosis (iv) Postural hypotension
- (c) Second gas effect is exerted by the following gas when administered with halothane:
- (i) Nitrous oxide (ii) Nitrogen
- (ii) Cyclopropane (iv) Helium
- (d) Injection of adrenaline along with a local anaesthetic serves the following purpose:
- (i) Lower the concentration of the local anaesthetic to produce nerve block
- (ii) Prolongs the duration of local anaesthetic
- (iii) Increases the anaesthetized area
- (iv) Reduces the local toxicity of the local anaesthetic

- (b) The organ most sensitive to action of atropine is:
- (i) Gastric glands (ii) Urinary bladder muscle
- (ii) Buccinator (iv) Zygomaticus minor
- (c) First line antitubercular drugs include the following except:
- (i) Ciprofloxacin (ii) Pyrazinamide
- (ii) Streptomycin (iv) Ethambutol
- (d) Chlorpromazine is ineffective in vomiting due to:
- (i) Motion sickness (ii) Digoxin therapy
- (ii) Morning sickness (iv) Gastritis
- (e) Corticosteroid therapy can aggravate the following disorder except:
- (i) Congenital adrenal hyperplasia
- (ii) Diabetes mellitus
- (iii) Hypertension
- (iv) Peptic ulcer

Part B

1. Classify NSAIDs. Discuss in brief the indications and adverse effects of Aspirin. (8)
2. Briefly discuss the following: (4x2=8)
- (a) Drug Resistance
- (b) Atenolol.
3. Write short notes on any three of the following: (3x3=9)
- (a) Obtundents
- (b) Cotrimoxazole
- (c) Dental Caries
- (d) Bleaching agents
4. Chose the most appropriate response: (2x5=10)
- (a) The therapeutic index of a drug is a measure of its:
- (i) Safety (ii) Efficacy
- (ii) Potency (iv) Dose Variability

BDS 2nd PROFESSIONAL EXAMINATION 2009-10

Course Code: BDS202

Paper ID:0312102

General and Dental Pharmacology & Therapeutics

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A and Part B. Each Part

Carry 35 Marks. Draw proper diagrams to support your answer.

2. Use separate answer book for Part A and Part B.

Part A

1. Enumerate different types of Routes of drug administration. Discuss oral route in detail. (8)
2. Discuss the following in detail: (4x2=8)
 - (a) First pass metabolism
 - (b) Tolerance
3. Briefly describe drug treatment of any three of the following: (3x3=9)
 - (a) Gingivitis
 - (b) Anaphylactic shock
 - (c) Oral candidiasis.
 - (d) Acute attack of angina pectoris.
4. Choose the most appropriate response: (3x3=9)
 - (a) Drug administered through the following route is most likely to be subjected to first pass metabolism:
 - (i) Oral
 - (ii) Subcutaneous
 - (ii) Sublingual
 - (iv) Rectal
 - (b) Which of the following is a prodrug:
 - (i) Hydralazine
 - (ii) Captopril
 - (ii) Clonidine
 - (iv) Enalapril

- (c) Amoxicillin is inferior to ampicillin for the treatment of the following infection:
 - (i) Typhoid
 - (ii) Subacute bacterial endocarditis
 - (iii) Shigella enteritis
 - (iv) Gonorrhoea
- (d) An 8 year old child represented with brownish discoloured and deformed anterior teeth. History of having received an antibiotic about 4 years earlier was obtained. Which antibiotic could be responsible for the condition:
 - (i) Chloramphenicol
 - (ii) Erythromycin
 - (ii) Tetracycline
 - (iv) Gentamicin
- (e) Persistent dry cough may occur as a side effect of the following antihypertensive drug:
 - (i) Enalapril
 - (ii) Atenolol
 - (ii) Diltiazem
 - (iv) Methyldopa

Part B

1. Enumerate anti-inflammatory drugs. Write the mechanism of action, therapeutic uses and adverse effects of Ibuprofen. (8)
2. Briefly discuss the following: (4x2=8)
 - (a) Prokinetic agents
 - (b) Adverse Drug Reactions
3. Write short notes on any three of the following: (3x3=9)
 - (a) Astringents
 - (b) Disclosing agents
 - (c) Styptics (Local Haemostatic agents)
 - (d) Super infection
4. Chose the most appropriate response: (2x5=10)
 - (a) The therapeutic index of a drug is a measure of its:
 - (i) Safety
 - (ii) Efficacy

(ii) Potency (iv) Dose Variability

**SUPPLEMENTARY BDS 2nd PROFESSIONAL
EXAMINATION 2009-10**

Course Code: BDS203

Paper ID:0312103

Dental Materials

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A and Part B. Each Part

**Carry 35 Marks. Draw proper diagrams to support your answer.
2. Use separate answer book for Part A and Part B.**

Part A

1. Classify impression materials. What are the ideal properties of impression material? Compare reversible and irreversible hydrocolloids. (8)
2. Classify direct filling gold. Discuss gold foil in detail. (8)
3. Write short notes on: (3x3=9)
 - (a) Dentin bonding agents
 - (b) High copper amalgam
 - (c) Sprue.
4. Attempt following multiple choice questions: (2x5=10)
 - (a) Phenomenon common to ZOE and polycarboxylate cement is:
 - (i) Acid base reaction (ii) Cross linking
 - (ii) Chelation (iv) Polymerizaion
 - (b) Contact angle should be _____ degrees for proper wetting:
 - (i) Zero degree (ii) 45 degrees
 - (ii) 60 degrees (iv) 90 degrees

- (b) The organ most sensitive to action of atropine is:
(i) Gastric glands (ii) Urinary bladder muscle
(ii) Buccinator (iv) Zygomaticus minor
- (c) First line antitubercular drugs include the following except:
(i) Ciprofloxacin (ii) Pyrazinamide
(ii) Streptomycin (iv) Ethambutol
- (d) Chlorpromazine is ineffective in vomiting due to:
(i) Motion sickness (ii) Digoxin therapy
(ii) Morning sickness (iv) Gastritis
- (e) Corticosteroid therapy can aggravate the following disorder except:
(i) Congenital adrenal hyperplasia
(ii) Diabetes mellitus
(iii) Hypertension
(iv) Peptic ulcer

Paper is used

- (c) Which of the following impressions can be most safely transported to the dental laboratory?
- (i) Polysulphides (ii) Addition silicones
(ii) Condensation silicones (iv) Alginates
- (d) Excessive monomer in acrylic resin results mainly in:
- (i) Excessive expansion (ii) Excessive shrinkage
(ii) Increased strength (iv) Increased porosity
- (e) Area under complete stress strain curve provides:
- (i) Modulus of elasticity (ii) Toughness.
(ii) Modulus of resilience (iv) Proportional limit

Part B

1. Classify dental casting alloys. What are the desirable properties of dental casting alloys? Write in brief about the heat treatment of gold casting alloys. (8)
2. Classify resin based composites. Write application, properties and composition of composite restorative materials. (8)
3. Write short notes on: (3x3=9)
 - (a) Trituration in Amalgam
 - (b) Acid etch technique
 - (c) Heat activated vs chemically activated acrylic resins.
4. Attempt following multiple choice questions: (2x5=10)
 - (a) Time dependent plastic deformation of a material is called:
 - (i) Creep (ii) Viscosity
 - (ii) Flow (iv) Elasticity
 - (b) Investment material used for base metal alloys is:
 - (i) Gypsum bonded investment
 - (ii) Phosphate bonded investment

- (iii) Silicate bonded investment
(iv) All of the above
- (c) Maximum flow permitted for type B inlay wax at 37°C:
- (i) 1% (ii) 25%
(ii) 50% (iv) 70%
- (d) Purpose of adding Indium to metal alloy in porcelain fused to metal is:
- (i) To improve bonding
(ii) To increase strength
(iii) To decrease porosity
(iv) To match thermal expansion of porcelain and metal
- (e) In visible light cure composites activation is achieved by:
- (i) N-N-P toluidine
(ii) Camphoroquinone
(iii) Benzoyl methylether
(iv) Bisphenol-A

BDS 2nd PROFESSIONAL EXAMINATION 2009-10

Course Code: BDS203

Paper ID:0312103

Dental Materials

Time: 3 Hours

Max Marks: 70

Note: 1. Attempt all questions from Part A and Part B. Each Part

Carry 35 Marks. Draw proper diagrams to support your answer.

2. Use separate answer book for Part A and Part B.

Part A

1. Classify gypsum product? Write in detail about dental stone. (8)
2. Enumerate various steps involved in Casting? Discuss in detail types and causes of casting defects. (8)
3. Write short notes on: (3x3=9)
 - (a) Die materials
 - (b) Glass ionomer cements
 - (c) Proportional limit, Elastic limit and Yield strength.
4. Attempt following multiple choice questions: (2x5=10)
 - (a) Which of the following components of alginate impression material may be a possible health hazard?
 - (i) Alginic acid
 - (ii) Triethanol amine
 - (ii) Silica
 - (iv) None of the above
 - (b) The gelation temperature of agar hydrocolloid impression material should be:
 - (i) Far below the oral temperature
 - (ii) 37-45° C
 - (iii) 45-60° C
 - (iv) 10° higher than the mouth temperature

- (c) Sometimes a die larger than the prepared tooth is desired to aid in compensating for the:
 - (i) Casting shrinkage
 - (ii) Dimensional change of the impression
 - (iii) Warpage of the wax pattern
 - (iv) Expansion of the mold
- (d) When mixing dental stone, if the water powder ratio is increased, the:
 - (i) Compressive strength is increased
 - (ii) Surface hardness is increased
 - (iii) Setting time is decreased
 - (iv) Setting expansion is decreased
- (e) The primary corrosion products of amalgam are:
 - (i) Silver chloride or fluoride
 - (ii) Copper sulphate
 - (iii) Oxides and chlorides of tin
 - (iv) Zinc and silver dioxide

Part B

1. Classify impression materials. Compare different types of elastomeric impression materials. (8)
2. What is dental amalgam? Compare low copper and high copper alloys. (8)
3. Write short notes on: (3x3=9)
 - (a) Biocompatibility of dental materials
 - (b) Colour
 - (c) Cavity varnish, cavity liners and bases
4. Attempt following multiple choice questions: (2x5=10)
 - (a) In noble metal casting alloys, platinum may be substituted by:
 - (i) Palladium
 - (ii) Carbon
 - (ii) Gallium
 - (iv) Nickel

(b) For visible light cured resins, the light has a wavelength of:

- (i) 700 nm
- (ii) 400 nm
- (iii) 200 nm
- (iv) 850 nm

(c) 8:8 stainless steel contains:

- (i) 18% Cr, 8% Ni
- (ii) 18% Cr, 8% Co
- (iii) 18% Ni, 8% Cr
- (iv) 18% Co, 8% Cr

(d) The purpose of heating direct filling gold before its condensation is:

- (i) Sterilization
- (ii) Homogenization
- (iii) Softening
- (iv) Volatilizing surface contaminants

(e) When Vickers hardness test the indenting tool is in the shape of:

- (i) A 136 diamond pyramid
- (ii) A blunt pointed cylinder
- (iii) A rhomboidal pyramid
- (iv) A conical diamond

Paper is used