

Subject : Anatomy
Paper : I

Full . Ma
Time : 2

Use Separate answer Script for each group
Attempt all questions. The figures in the margin indicate full marks

Group – A

1. (a) Give a brief account of ureter. Mention its microscopic structure and de
Explain radiation of pain from loin to groin in ureteric colic. 6+2
OR
(b) Name the nerve involved in fracture of medial epicondyle of humerus. De
course and distribution of the nerve beyond elbow. Mention motor an
disabilities following its injury.

Group – B

2. Answer any two of the following :
(a) Discuss different factors that maintain longitudinal arch of foot. Wha
disadvantages of flat foot?
(b) Mention the factors that prevent gastroesophageal regurgitation. Give an
histological structure of oesophagus.
(c) Give an account of uterine cervix. Mention its lymphatic drainage.

Group – C

3. Write notes on any four of the following :
(a) Non disjunction. ✓
(b) Femoral sheath ✓
(c) Ovarian fossa on lateral Pelvic wall.
(d) Placental barrier. ✓
(e) Cephalic vein. ✓

Group – D

4. Explain the following statement :
(a) Clavicle is a modified long bone.
(b) A newborn baby presenting with imperforate anus.
(c) Foot drop after fracture of neck of fibula
(d) Pain around umbilicus in case of acute appendicitis.

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**The West Bengal University of Health Sciences
MBBS 1st Professional Examination 2013**

Subject ; Anatomy
Paper : II

Full . Marks:50
Time : 2. ½ hours

Use Separate answer Script for each group
Attempt all questions. The figures in the margin indicate full marks

Group – A

- 1 (a). Name the ventricles of brain. Mention the boundaries and communications of third ventricle. What is hydrocephalus ? 2+8+2=12
- OR
- (b) Give an account of pleura. Mention its nerve supply. What is the site of choice for insertion of needle to drain pleural fluid and why ? 6+3+3=12

Group – B

2. Answer any two of the followings :
- (a) Enumerate paired venous sinuses in skull. Write brief note on cavernous sinus. 3+4=7
- (b) What is primary defect in Fallot's Tetralogy. Describe the development of interventricular septum. 1+6=7
- (c) Mention the boundaries of Pyriform fossa of pharynx and its sensory supply. What is the clinical importance of the fossa. 3+2+2=7

Group – C

3. Write short notes on any four of the following : 4 x 3 = 12
- (a) Inlet of Thorax.
- (b) Branchial cyst
- (c) Otic ganglion.
- (d) Temporomandibular joint.
- (e) Danger area of face.

Group – D

4. Explain the following statement : 4 x 3 = 12
- (a) In tonsillitis pain is referred to middle ear.
- (b) Superior parathyroids are inferior in position.
- (c) Optic disc in eyeball is known as blind spot.
- (d) Postero inferior quadrant of tympanic membrane is chosen for myringotomy.

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**The West Bengal University of Health Sciences
MBBS 1st Professional Examination 2013**Subject ; Physiology
Paper : IFull . Marks:50
Time : 2. ½ hours**Use Separate answer Script for each group**
Attempt all questions. The figures in the margin indicate full marks**Group – A**

- ✓ 1. (a) Describe the role of lymphocytes in immunity. What is acquired immunodeficiency syndrome (AIDS) ? 8 + 4
- OR
- ✓ (b) What is haemophilia ? Enumerate the steps of haemostasis. Describe the intrinsic pathway of coagulation. 2+3+7

Group – B

2. Answer any two questions :

- ✓ a) What is Bohr effect? How CO₂ is transported from tissues to the lungs? 2 + 5
- ✓ b) What is gastric mucosal barrier? Discuss the physiological basis of management of peptic ulcer. 2 + 5
- ✓ c) What is erythroblastosis foetalis? What are the hazards of mismatched blood transfusion? 2 + 5

Group – C

3. Write short notes on any four :

4 x 3

- ✓ a. Facilitated diffusion.
- ✓ b. Lung compliance
- ✓ c. Pacemaker potential
- ✓ d. Gap junction
- ✓ e. MMC (Migratory motor complex)

Group – D

4. Give the physiological explanation of the following :

4 x 3

- ✓ a. Urine becomes alkaline after taking meal
- ✓ b. Appreciable amount of stool continue to be passed during prolonged starvation.
- ✓ c. Maximum blood flow to left ventricle occurs in diastole.
- ✓ d. Anaemia occurs after gastrectomy.

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**The West Bengal University of Health Sciences
MBBS 1st Professional Examination 2013**

Subject : Physiology
Paper : II

Full . Marks:50
Time : 2. ½ hours

Use Separate answer Script for each group
Attempt all questions. The figures in the margin indicate full marks

Group – A

1. (a) What are the functional divisions of the cerebellum? With diagram show the to and fro connections of the cerebellum. Enumerate the functions of cerebellum and the clinical manifestation following its lesion. 2+3+3+4

OR

- (b) Enumerate the functions of calcium in our body. How the homeostasis is maintained by involving different hormones? What are the sources of these hormones ? Name the features of Ricket and osteomalasia. 2+4+2+4

Group – B

2. Answer any two of the following : -

- a) Describe the photochemical changes that occur in the Retina. What is night blindness? 5+2
- b) Describe female sexual cycle. What is LH Surge? 6 + 1
- c) Where is the site of production of Renin? Name the stimulants for Renin secretion. What are the sequence of events in Reninangiotensin system? 1+2+4

Group – C

3. Write short notes on any four of the following : 4 x 3

- a) Counter current multiplication.
b) Secretion and ejection of milk
c) Organ of corti
d) Cretinism.
e) Glucocorticoids

Group – D

4. Give the physiological explanation of the following : 4 x 3

- a) Near point recedes with ageing.
b) Chances of pregnancy are less likely in regularly lactating mothers.
c) Finger-nose test becomes abnormal in cerebellar disorder.
d) Metabolic acidosis may be found in Diabetes mellitus.

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The West Bengal University of Health Sciences
MBBS 1st Professional Examination 2013Subject: Biochemistry
Paper: IFull Marks 50
Time 2 ½ hours

Use Separate answer Script for each group

Attempt all questions. The figures in the margin indicate full marks

Group - A

- 1 (a) Write the Michaelis-Menten equation and explain the role of substrate concentration on the rate of enzyme catalysed reactions with the help of graphs. Illustrate how V_{max} and K_m are affected by competitive and non-competitive inhibition of enzymes. The K_m value for glucokinase is much higher than that for hexokinase though both acts on glucose. Explain this statement. 6+4+2=12

OR

- (b) Describe how the amino acid composition, N-terminal and C-terminal residues of a protein are determined and identified. Describe the bonds responsible to maintain the four orders of protein structure. Briefly indicate how the molecular weight of a protein is determined. 7+3+2=12

Group - B

- 2 Answer any two of the following

- (a) Explain the mechanisms of signal transduction by cyclic AMP, Calcium and phosphoinositol system with the help of diagrams. 5+2=7
- (b) Indicate in detail the chemical composition of glycosaminoglycans and proteoglycans. Name the carbohydrates present in glycoproteins and glycolipids. 5+2=7
- (c) Classify phospholipids with examples. Mention their specific role in maintaining the fluidity of plasma membrane. 5+2=7

Group - C

- 3 Write short notes on any four of the following 4 x 3 = 12

- (a) Superoxide dismutase
- (b) Role of Cyt P₄₅₀ in a hydroxylation reaction
- (c) Sources of the nitrogen and carbon atoms of the purine ring
- (d) Separation and identification of lipids by thin layer chromatography
- (e) Respiratory acidosis

Group - D

- 4 Explain the following statements 4 x 3 = 12

- (a) Patients having hemoglobin S often suffer from anemia
- (b) Colloids are biologically important and have clinical significance
- (c) The mode of action of metalloenzymes and metal activating enzymes are not the same
- (d) Radioimmunoassay techniques have got demerits also

001/13

**The West Bengal University of Health Sciences
MBBS 1st Professional Examination 2013**

Subject : Biochemistry
Paper : II

Full . Marks:50
Time : 2. ½ hours

Use Separate answer Script for each group
Attempt all questions. The figures in the margin indicate full marks

Group – A

1. (a) Describe in a flow diagram the metabolic pathways of glycogen formation and degradation in the body. Describe in separate charts how cyclic AMP regulates these processes by enzyme modification. 4+8=12

OR

- (b) Describe the metabolic steps of Citric acid (Krebs') cycle in a flow diagram indicating the enzymes and co-enzymes involved and highlighting the steps where energy is produced. Mention the steps in the cycle which are irreversible in nature. Indicate how propionate is converted to one of the intermediates of this cycle. 8+2+2=12

Group – B

- ✓ 2. Answer any two of the following :

- (a) Describe the initiation, elongation and termination phases of protein synthesis in eukaryotes. Name the antibiotics which specifically inhibit the microbial protein synthesis. 5+2=7

- (b) Describe in detail how pyruvate is converted to acetyl CoA in the body. 7

- (c) Give the exact chemical composition of very low density lipoprotein. Explain their formation and fate in the body. 2+5=7

Group – C

3. Write short notes on any four of the following : 4 x 3=12

- (a) S-adenosyl methionine
(b) Control of HMG CoA reductase;
(c) Base excision repair of DNA ;
(d) Frame shift mutation ;
(e) Gout.

Group – D

4. Explain the following statements : 4 x 3 =12

- (a) Levels of hepatic enzymes can differentiate between hemolytic, hepatocellular and obstructive jaundice.
(b) Ketone bodies are degraded in the extrahepatic tissues only.
(c) Patients with carcinoid may exhibit symptoms of pellagra.
(d) Alcaptonuria is often associated with generalized pigmentation of connective tissues.