MODEL QUESTION PAPER

First Professional MBBS Degree Examination

Paper –I ANATOMY

Time: 3 hrs **Max marks: 50**

Instructions:

- Draw diagrams wherever necessary
- Answer all questions.

1. A 70 year old man on walking uphill feels sudden onset of severe chest pain radiating to the medial side of left arm associated with tiredness and sweating. He gives a history of similar attacks and was on treatment. With your knowledge in Anatomy answer the following questions.
    - Name the organ affected
    - Give a brief account of its arterial supply.
    - Mention the reason for the radiation of pain.
    - Name the covering of the organ and give their nerve supply.

(1+4+2+3=10 marks)

Write briefly on:

2. Inversion and eversion of foot
3. Bronchopulmonary segments of right lung
4. Radioulnar joints **(3x5=15 marks)**

Write notes on:

5. Decidua
6. Medial longitudinal arch of foot
7. Clavipectoral fascia
8. Coronary sinus
9. Rotator cuff **(5x3=15 marks)**

Write short answers on :

10. Enumerate the derivatives of neural crest
11. Down's Syndrome
12. Microscopic structure of lymph node **(3x2=6 marks)**

Draw neat labelled diagram of the following:

13. Sagittal section through the shoulder joint
14. Sternocostal surface of heart **(2x2=4 marks)**

MODEL QUESTION PAPER

First Professional MBBS Degree Examination

Paper -II ANATOMY

Time: 3 hrs **Max marks: 50**

Instructions:

- Draw diagrams wherever necessary
- Answer all questions.

1. A 10 year old boy was brought to the O.P with fever and difficulty in opening his mouth and chewing. On examination there was a swelling in front of his left ear associated with tenderness. Based on your knowledge in Anatomy answer the following questions.
    - Name the structure affected in this case
    - Describe the coverings, surfaces and borders of the structure
    - Mention the structure traversing it
    - Give the nerve supply of the structure

(1+5+2+2=10 marks)

Write briefly on:

2. Ischiorectal fossa
3. Constituent fibres and arterial supply of internal capsule
4. Development and congenital anomalies of palate.**(3x5=15 marks)**

Write notes on:

5. Superior constrictor muscle
6. Auditory tube
7. Lateral geniculate body
8. Microscopic structure of retina
9. Superior mesenteric artery **(5x3=15 marks)**

Write short answers on:

10. Enumerate the arteries and nerves supplying anterior quadrant of scalp
11. Meckel's diverticulum
12. Coverings of prostate gland **(3x2=6 marks)**

Draw neat labelled diagram of the following:

13. Structures seen posterior to the stomach
14. Transverse section through upper part of midbrain **(2x2=4 marks)**

MODEL QUESTION PAPER

First Professional MBBS Degree Examination

Paper - I BIOCHEMISTRY

Time: 3 hrs **Max marks: 50**

Instructions:

- Draw diagrams wherever necessary
- Answer all questions.

1. Name the sulphur containing amino acid. Discuss metabolism of the essential amino acid of this group and add a note on associate inborn errors. **(1+5+4=10 marks)**

Discuss the following:

2. Complication of Diabetes mellitus
3. Components and sequence of reactions occur in Electron transport chain. **(2x5 =10 marks)**

Write short notes on:

4. Structure of human insulin.
5. Structure of bio membrane.
6. Fatty acid synthase enzyme complex.
7. Glycation of haemoglobin and it's significances.
8. What is the Normal serum cholesterol? Why HDL & LDL cholesterol are known as good and bad cholesterol respectively ?

(5x3 =15 marks)

Write briefly:

9. Key enzymes of gluconeogenesis.
10. Energy expenditure in Urea cycle.
11. Importance of Carnitine in lipid metabolism
12. Deficient enzyme and clinical features in galactosemia.
13. What is the biochemical basis of fatty liver in alcoholism?

(5x2 =10 marks)

Give precise answers:

14. What is the basis of curdling of milk?
15. Mention any four fate of acetyl CoA.
16. Mention any two functions of phospholipids.
17. Mention any two enzymes used as therapeutic agents
18. Why sample for glucose estimation is collected in a fluoride bottle? **(5x1 =5 marks)**

MODEL QUESTION PAPER

First Professional MBBS Degree Examination

Paper - II BIOCHEMISTRY

Time: 3 hrs **Max marks: 50**

Instructions:

- Draw diagrams wherever necessary
- Answer all questions.

1. What is translation? Discuss the process of translation and add a note on post translational modifications.

(1+6+3=10 marks)

Discuss the following

2. Porphyrias.
3. Renal mechanism of regulation of blood pH

(2x5=10 marks)

Write short notes on:

4. Telomerase
5. Orotic aciduria.
6. Cytochrome P450.
7. Diseases related to copper metabolism
8. Role of one carbon compounds in purine & pyrimidine formation.

(5x3=15 marks)

Write briefly:

9. Creatinine clearance
10. Metabolic role of vitamin C.
11. Factors affecting electrophoresis.
12. Effects of radiation on normal tissue
13. Deficient enzyme and clinical features in Lesch – Nyhan syndrome.

(5x2=10 marks)

Give precise answers:-

14. Nucleosomes
15. Klenow fragment
16. Name two selenium containing enzymes.
17. Mention any two oncosuppressor gene.
18. Name the most important extra cellular cation and write its normal serum level.

(5x1=5 marks)

MODEL QUESTION PAPER

First Professional MBBS Degree Examination

Paper - I PHYSIOLOGY

Time: 3 hrs **Max marks: 50**

Instructions:

- Draw diagrams wherever necessary
- Answer all questions.

1. A 40 years old obese women, complained of repeated attacks of right hypochondrial pain and yellow coloration of eyes. Her serum bilirubin -15mg/dl Vanderberg test was direct positive and serum alkaline phosphatase was 50 IU.
   - Give the most appropriate name of this clinical condition.
   - What is the life span of RBC and how do you measure it ?
   - List the steps of breakdown of Hemoglobin

   (1+3+6=10 marks)

Short Essay:

2. Discuss the factors affecting Glomerular Filtration Rate. Mention one abnormal condition when GFR is decreased **(4+1=5 marks)**

3. Explain the transport of Carbondioxide in blood **(5 marks)**

Write briefly on:

4. Function of Large intestine
5. Gastric emptying
6. Formation and functions of Lymph
7. Micturition Reflex
8. Role of Hypothalamus in Temperature regulation **(5x3=15 marks)**

Draw and label:

9. Normal E C G in Lead II
10. Juxtaglomerular apparatus **(2x2½ =5 marks)**

Explain the physiological basis of the following:

11. Post prandial alkaline tide
12. Clotting of blood does not occur In-vivo normally
13. Coronary arteries are perfused during diastole
14. Hypersmolarity of renal medullary interstium
15. Lung alveoli are kept dry normally **(5x2=10 marks)**

MODEL QUESTION PAPER

First Professional MBBS Degree Examination

Paper - II PHYSIOLOGY

Time: 3 hrs **Max marks: 50**

Instructions:

- Draw diagrams wherever necessary
- Answer all questions.

1. A 60 year old man was brought to the casualty with the complaints of sudden onset of inability to move his right upper limb and lower limp. He gave a history of treatment for hypertension since 10 years. On examination he presented with-
   - Hemiplegia with UMN facial nerve palsy of the right side
   - Name the tract affected in this patient
   - Mention the most probable site of lesion
   - Trace the affected pathway with the help of a diagram
   - State the differentiating features of Upper Motor Neurons and Lower Motor Neuron lesions
   - Comment on the tone of the muscles of the affected side

(1+1+4+2+2=10 marks)

Short Essay:

2. Give an account of visual pathway. What is the effect of a lesion of right optic tract?
3. Discuss the hormonal regulation of blood calcium level

(2x5=10 marks)

Write briefly on:

4. Pathway of pain from the face
5. Theories of hearing
6. Role of nigrostrial pathway in regulating cortical activity
7. Hormonal control of lactation
8. Second Messengers **(5x3=15 marks)**

Draw and label:

9. Organ of Corti
10. Hormonal changes during normal menstrual cycle.

(2x2½ =5 marks)

Write short notes on:

11. Actions of aldosterone
12. Impedence matching
13. Functions of sertoli cells
14. Sarcomere
15. Pre Synaptic Inhibition **(5x2=10 marks)**