BLDE (DEEMED TO BE UNIVERSITY)
MBBS PHASE – I EXAMINATION

[Time :3 Hours] [Max. Marks: 80]

ANATOMY – PAPER – I
QP CODE: 1011

Your answer should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.
Each answer should be written on new page only.
Write Question No. in the middle of margin.

Long Essay: (Answer to be started on fresh page only) **2 X 10 = 20**

1. Describe interior of right atrium of heart with a note on its development.
2. A 19 year old student was yawning in the class suddenly he couldn't close his mouth , he felt severe pain in the lower jaw
   a. What is the probable diagnosis?
   b. Describe the articular surfaces, ligaments , relations of TM joint
   c. Add a note on movements and muscles producing them. (1+6+3)

Short Essay: (Answer to be started on fresh page only) **6 X 5 = 30**

3. Cubital fossa – boundaries and contents
4. Explain how cadaver is your first teacher during the first MBBS course
5. Discuss the T.S of pons at the level of facial colliculus
6. Histology of thin skin
7. Twinning
8. Young female suffering from benign intracranial hypertension was diagnosed with medial squint (eye ball adducted medially with inability to perform abduction): a) which cranial nerve is likely to be affected & why ? b) Give brief account of nerve supply of extra-occular muscles.

Short Answer: (Leave three lines gap between the answers) **10 X 3 = 30**

9. Lymphatics of breast
10. Root of right lung
11. Blood supply of thyroid gland
12. Cerebellar nuclei
13. Microscopic structure of serous salivary gland
14. Types of cleft lip with embryological etiology
15. Thoracic duct
16. First Carpo meta carpal joint
17. Otic ganglion
18. Killian's dehiscence

5/11/25 AM

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[Time :3 Hours] **[Max. Marks:80]**

ANATOMY – PAPER – II
QP CODE:1012

Your answer should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.
Each answer should be written on new page only.
Write Question No. in the middle of margin.

Long Essay: (Answer to be started on fresh page only) **2 X 10 = 20**

1. A 30-year old female is diagnosed with varicose veins on left leg. What is the meaning of varicosity? Describe venous drainage of lower limb
2. What are the parts of extra hepatic biliary apparatus. Describe gall bladder under the following headings a) location and parts, b) gross features, c) blood supply, d) Applied aspect (2+2+4+1+1)

Short Essay: (Answer to be started on fresh page only) **6 X 5 = 30**

3. A 20-year old boy has sleeping foot on sitting for a long time in his classroom. Which nerve is involved? Describe its root value, course with relations and branches
4. Development of uterus
5. Histology of duodenum
6. Write about importance of communication in medical practice
7. Numerical chromosomal abnormalities
8. Deep perineal pouch

Short Answer: (Leave three lines gap between the answers) **10 X 3 = 30**

9. Gracilis muscle
10. Structures present at transpyloric plane in abdomen
11. Histology of ureter – labeled diagram only
12. Development of adrenal gland
13. What is the chromosomal anomaly and features of Edward syndrome
14. Structures passing through greater sciatic foramen
15. Hessalbach's triangle
16. Boundaries of epiploic foramen in abdomen
17. What are the bare areas in liver
18. A person goes to the doctor complaining of bleeding per rectum. +Explain the blood supply of rectum

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[Time: 3 Hours] [Max. Marks: 80]

BIOCHEMISTRY – PAPER – I
QP CODE:1015

Your answer should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.
Each answer should be written on new page only.
Write Question No. in the middle of margin.

Long Essay: (Answer to be started on fresh page only) **2 X 10 = 20**

1. Give an account of β – oxidation of saturated even carbon fatty acid (Palmitic acid) along with its energetics and regulation. (5+2+3)
2. Describe TCA cycle along with regulation. Add a note on its Amphibolic role. (5+3+2)

Short Essay: (Answer to be started on fresh page only) **6 X 5 = 30**

3. Give the RDA, biochemical functions and deficiency manifestation of Vitamin A. (1M+2M+2M)
4. Define phospholipids. Classify them with suitable examples and state their functions. (1+2M+2M)
5. Explain the different theories proposed for mechanism of enzyme- substrate complex formation.
6. Write a note on Fluid Mosaic Model of Plasma Membrane.
7. Ms. Rina Devi, a 58-year-old vegetarian on a dairy-free diet with minimal sun exposure, presented with muscle cramps, tingling, fatigue, and irritability. Physical examination revealed positive Chvostek's and Trousseau's signs, indicating neuromuscular hyperexcitability. Blood tests confirmed deficiency of an important mineral with insufficient Vitamin D and elevated parathyroid hormone.
   Give the RDA, biochemical functions and deficiency manifestations of the deficient nutrient. (1M+2M+2M)
8. Describe the role of blood buffers in acid-base balance.

Short Answer: (Leave three lines gap between the answers) **10 X 3 = 30**

9. Enumerate the roles of a physician in health care system.
10. Write a note on anion gap.
11. What are Physiological uncouplers?
12. What is Balanced Diet?
13. What is Oxidative stress and its effects on biological compounds? (1M+2M)
14. Renin-Angiotensin system
15. Diagnostic uses of enzymes.
16. List the biochemical functions of selenium.
17. Write a note on Glucose challenge test (GCT).
18. Clinical importance of Inulin and Dextran.

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MBBS PHASE – I EXAMINATION

[Time: 3 Hours] [Max. Marks: 80]

BIOCHEMISTRY – PAPER – II
QP CODE: 1016

Your answer should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.
Each answer should be written on new page only.
Write Question No. in the middle of margin.

Long Essay: (Answer to be started on fresh page only) **2 X 10 = 20**

1. A 45-year-old male presented with excruciating pain in the great toe. He was obese and had history of consumption of alcohol. On investigations his serum uric acid levels was 12.1 mg/dl. (1+5+2+2)
   a) Interpret the serum uric acid level in above case.
   b) Explain how uric acid is formed?
   c) Give four causes of hyperuricemia.
   d) What is the biochemical basis of giving Allopurinol in the Management of Gout?
2. Enumerate in detail the steps of transcription in eukaryotes. Write about Post-transcriptional modifications and inhibitors. (6+2+2)

Short Essay: (Answer to be started on fresh page only) **6 X 5 = 30**

3. The following are the laboratory investigations in a patient who presented with oedema. (2+2+1)

Parameter	Serum Total Proteins	Serum Albumin	Albumin /Globulin (A/G) Ratio
Results	5.0 g/dl	2.3 g/dl	0.85:1

   a) What are functions of albumin?
   b) Explain the reason for edema in this patient
   c) What is normal A/G Ratio? Give two conditions in which A/G ratio is altered.
4. What are oncogenes and proto-oncogenes? Give the mechanisms of activation of proto- oncogenes to oncogenes.
5. Describe the steps in PCR. Give applications of PCR in medicine.
6. A 15 year tribal boy was admitted with the complaints of fatigue, recurrent fever and pain in arms and legs. His peripheral blood smear shows sickled erythrocytes and Hb concentration of 6 gm%.(1+2+2)
   a) Give the molecular defect in this disorder.
   b) Draw the electrophoretic pattern in this disorder.
   c) Explain the mechanism of sickling.
7. Give the structure and functions of immunoglobulins.
8. What are restriction endonucleases? Give two examples. Explain their role in Recombinant DNA technology

Short Answer: (Leave three lines gap between the answers) **10 X 3 = 30**

9. Give the advantages of automation in clinical biochemistry laboratory.
10. Explain why pellagra like symptoms are seen in Hartnup disease
11. Denaturation of proteins and its importance.
12. What are the phase-II detoxification reactions?
13. What is transmethylation? Give three transmethylation reactions.
14. Three biologically important peptides and their significance
15. Van den Bergh test and its interpretation in hepatic jaundice.
16. Creatinine clearance test
17. Biologically important nucleotides
18. HIV virus

6/7/25 AM

BLDE (DEEMED TO BE UNIVERSITY)
MBBS PHASE – I EXAMINATION

[Time: 3 Hours] [Max. Marks: 80]

PHYSIOLOGY – PAPER – I
QP CODE:1013

Your answer should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.
Each answer should be written on new page only.
Write Question No. in the middle of margin.

Long Essay: (Answer to be started on fresh page only) **2 X 10 = 20**

1. A 24 year-old female presents to her primary care physician with 3 months of severe pulsating headaches. Blood pressure measurement in the office was 174/109. The patient was told to keep track of her blood pressure daily. The patient subsequently underwent a renal Doppler ultrasound showing indirect evidence of renal artery stenosis. (1+3+6)
   a. What is the cause of elevated blood pressure in the above case scenario?
   b. Define Blood Pressure and its various components with their normal values.
   c. Classify regulation of BP and discuss short term regulation of blood pressure.
2. Enumerate the respiratory centers; explain their role in regulation of respiration. Add a note on periodic breathing. (2+6+2)

Short Essay: (Answer to be started on fresh page only) **6 X 5 = 30**

3. Define, Classify, Features and Mode of treatment of Hypoxia
4. Draw a neat labeled diagram of innervation of the urinary bladder. Explain micturition reflex. Add a note on abnormalities of micturition
5. Discuss cell mediated immunity
6. Define and classify Blood groups. Describe its importance. Add a note on transfusion reaction.
7. Describe Jugular venous pulse (JVP)
8. Describe composition and functions of bile

Short Answer: (Leave three lines gap between the answers) **10 X 3 = 30**

9. Define ejection fraction. Give its clinical significance
10. Non excretory functions of Kidney
11. Passive Transport Mechanisms.
12. Mastication
13. Define a) Acute Mountain sickness b) Decompression sickness
14. Filtration fraction: definition, normal value
15. Describe entero- hepatic circulation
16. Define and give normal values: 1. Stroke volume 2. End diastolic volume (EDV) 3. End systolic volume (ESV)
17. Enumerate professional qualities of a Physician
18. Lung compliance.

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MBBS PHASE – I EXAMINATION

[Time :3 Hours] [Max. MMarks:80]

PHYSIOLOGY – PAPER – II
QP CODE:1014

Your answer should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.
Each answer should be written on new page only.
Write Question No. in the middle of margin.

Long Essay: (Answer to be started on fresh page only) **2 X 10 = 20**

1. Describe in detail cause, effect and correction for errors of refraction with the help of well labeled diagram.
2. Enumerate hormones secreted by anterior pituitary. Describe the physiological actions of growth hormone.

Short Essay: (Answer to be started on fresh page only) **6 X 5 = 30**

3. Describe the functions of cerebellum
4. A person complains of sudden marked muscular weakness with loss of voluntary movement of right half of the body while taking bath. On clinical examination, deep reflexes were hyperactive but superficial reflexes were lost. His facial expressions were very strong.
   a. What could be the probable site of injury in the brain? (1 mark)
   b. What is the type of motor neuron lesion? (1 mark)
   b. What is the physiological basis for signs and symptoms in this case? (3 marks)
5. Describe the sensory and motor changes in a hemi section of spinal cord
6. Describe professional qualities and role of physician
7. Describe the functions of hypothalamus.
8. What are the different ways of heat loss from the body? Add a note on heat stroke.

Short Answer: (Leave three lines gap between the answers) **10 X 3 = 30**

9. Draw a neat labelled diagram of neuromuscular junction.
10. Enumerate the factors influencing spermatogenesis
11. Write the Classification of Contraceptive methods.
12. Clinical features of hypothyroidism
13. Enumerate physiological changes during NREM sleep
14. Define synapse .Enumerate any 6 properties of synapse
15. Saltatory conduction
16. Physiological basis of urine pregnancy tests
17. Enumerate the extra pyramidal tract and its Functions.
18. State the Differences between isotonic and isometric muscle contraction