

February - 2023

**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 number in left side of margin

Long Essay: (Answer to be started on fresh page only)

2 X 10 = 20

- An 18-year old college student has history of episodic attacks of shortness of breath, dry cough & wheezing for the past 5 years. These symptoms usually occur during change of weather or whenever she catches cold & tend to worsen during night and early morning. She also has history of recurrent sneezing, runny nose & itchy eyes. She was advised some inhaler medications by a local health practitioner. She does not have fever, haemoptysis or loss of weight. Her father is a chronic smoker who smokes around 10 cigarettes per day for 15 years often at home. She sometimes helps her mother in kitchen after returning home from college. They frequently use dry wood for cooking. Her mother also had similar problems during childhood.
 - What is the likely diagnosis?
 - Describe lung volumes and capacities with neat Diagram?
 - How you differentiate between obstructive and restrictive lung disorder? (2+ 6+2)
- 50 year old male presented with history of abdominal pain and diarrhoea. On physical examination, the patient was in mild to moderate distress with a heart rate of 140bpm, BP of 90/60 mm Hg, RR of 20 cpm. His mucous membranes were dry. His cardiac exam was normal except for tachycardia, and his lung exam was normal. His abdominal examination revealed diffuse tenderness to palpation with hyperactive bowel sounds. The rest of the examination was normal.
 - What is the most likely type of shock in this patient?
 - Discuss about various types, stages & physiologic basis of treatment of shock (2+8)

Short Essay: (Answer to be started on fresh page only)

6 X 5 = 30

- Roles & Responsibilities of a doctor
- Rh Factor
- ESR: Definition, Methods to measure, Normal values, Diagram & Significance
- Functions of liver
- ECG: Definition, Graph, Description of normal waves & intervals & Significance
- Renal reabsorption of glucose

Short Answer: (Leave three lines gap between the answers)

10 X 3 = 30

- Draw a neat & labeled diagram of electron microscopic structure of cell membrane
- Define negative & positive feedback mechanisms of homeostasis with suitable examples
- Gastric Mucosal Barrier
- Pancreatic proteolytic enzymes
- List the functions of kidneys
- How does renal tubule secrete ammonia? Mention its role in acidification of urine
- V_A/Q Ratio
- Lung Compliance: Definition, Diagram & Normal value
- Draw a neat & labeled diagram to depict Oxygen- Hemoglobin dissociation curve
- Define & Classify hypoxia with examples

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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 number in left side of margin



Long Essay: (Answer to be started on fresh page only)

2 X 10 = 20

1. Describe the hormones secreted by Parathyroid gland and role of different hormones in calcium homeostasis. Add a note on Hypocalcemia? (3+5+2)
2. A 56 year old man, known hypertensive was brought to the hospital with right sided paralysis. he was not able to move his right arm and leg voluntarily. When he tried to smile, facial muscles on right side of the face did not contract. On examination Babinski's sign was present on right foot.
 - a. What is the cause for the neurologic deficits?
 - b. Describe the pathways of Pyramidal tract and their functions? (1+ 6 +3)

Short Essay: (Answer to be started on fresh page only)

6 X 5 = 30

3. List the properties of Synapse. Explain any THREE of them in detail
4. Describe the physiological changes that takes place during Pregnancy in females
5. What are endogenous pain inhibitory pathways? Add a note on referred pain
6. Draw the pathway of accommodation. Mention the changes in the eye during process
7. Discuss the theories of perception of colour vision . Add a note on color blindness.
8. Describe the functions and regulation of secretion of growth hormone.

Short Answer: (Leave three lines gap between the answers)

10 X 3 = 30

9. Define the following terms a. Anosmia b. Ageusia c. Acromegaly
10. Role of testosterone in the secondary sexual characters in males.
11. Enlist the changes which occur in the cardio-respiratory system during muscular exercise
12. Explain permissive action of hormones with an example.
13. Give reason for a) Exophthalmos in Grave's disease. B) Tachycardia in hyperthyroidism
14. Draw & label different errors of refraction of the eye and their corrections
15. What is Non shivering thermogenesis.
16. Role of hypothalamus in hunger.
17. Define the following a. Bell Megandie Law b. Muller's doctrine of specific nerve energies
18. List ovulation tests give physiological basis of it.