

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

[Time: 3 Hours]

[Max. Marks: 80+20 (MCQ)]

**PHYSIOLOGY – PAPER – I
QP CODE: 1003 – CBME**

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. Explain the mechanisms involved in hemostasis following injury to a blood vessel wall. Add a note on different types of hemophilia (6+4)
2. 47 years old man who is business executive, apparently healthy presented with complaints of retrosternal burning, epigastric fullness and repeated eructation for last six months. The pain disappears after taking food and reappears after 2 to 3 hours of post prandial.
 - a) Identify the disorder
 - b) Discuss Physiological basis of clinical features
 - c) List the investigations and various lines of treatment (1+6+3)

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

6 X 5 = 30

3. Describe the short term regulation of blood pressure.
4. Discuss the mechanics of normal breathing with compliance of lung
5. Explain the role of fluid mosaic model of cell membrane in transport of ions
6. Discuss the Physiological basis of gastric secretion with suitable experimental evidence.
7. Describe the GFR and factors affecting regulation of GFR
8. Describe the professional qualities & role of physician in health care system

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

10 X 3 = 30

9. Functions of Primary active transport.
10. Define dyspneic index and the normal value.
11. Peristalsis of the small Intestine
12. Give reasons as to why cyanosis is not a sign of histotoxic hypoxia & Anaemic hypoxia
13. Define filtration fraction, its normal value. Mention two conditions where it's altered.
14. Mention six special features of coronary circulation.
15. Physiological variations in ESR.
16. What is A-V nodal delay? Give it's significance.
17. What is Cystometrogram? Its clinical significance.
18. Circulatory changes during exercise.

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[Max.Marks : 100]

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Long Essay: (Answers to be started on fresh page only) 2x10=20

1. Describe the short term and intermediate regulation of blood pressure. 6 + 4
2. Describe the coagulation pathways. Explain Hemophilia in brief. 6 + 4

Short Essay: (Answers to be started on fresh page only) 10x5=50

3. Draw a diagram of an action potential in cardiac muscle. What is its ionic basis ? What is the effect of sympathetic nerve activity on this action potential ?
4. What are the heart sounds ? Draw a diagram indicating the phase in the cardiac cycle that they are heard. What is the basis of each heart sound ?
5. Name the body fluid compartments. List the methods used to measure body fluid compartments.
6. Explain the functions of bile. Mention the differences between cystic and hepatic bile
7. Give an account of composition and functions of pancreatic juice. How is the secretion regulated?
8. Describe various stages and associated events of deglutition.
9. Give an account of factors affecting GFR.
10. Draw a diagram of oxygen dissociation curve and label the graph. Explain Haldane effect and Bohr effect.
11. Define compliance of lungs, giving its normal value. What are the functions of surfactant? Name the conditions resulting due to deficiency of surfactant.
12. Describe the causes, manifestation and treatment of decompression sickness.

Short Answers: (Leave three lines gap between the answers) 10x3=30

13. P R interval
14. Hagen Poiseuilles' formula
15. Functions of granulocytes
16. Erythroblastosis fetalis.
17. Differences between active and passive transport.
18. Differences between the cortical and juxtamedullary nephrons.
19. List the endocrine functions of the kidneys.
20. What is diuresis? Name two conditions in which it is seen.
21. Diagrammatically represent the innervation of urinary bladder.
22. What is Timed Vital Capacity ? What is its clinical significance?

Jan -21

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

[Time: 3 Hours]

[Max. Marks: 80+20 (MCQ)]

PHYSIOLOGY – PAPER – II

QP CODE: 1004 – CBME

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. A 32 year old lady, presented with typical symptoms which included tiredness, shaking, palpitations, loss of weight in past 3 months. She also complained of itching, eye redness, bulging of eye to ophthalmologist.
 - a. What is the causes of symptoms?
 - b. Explain the Physiological basis behind it.
 - c. Describe the regulation. (2+5+3)
2. What is Parkinsonism? Enlist the clinical features. Explain the physiological basis for treating it with L DOPA. (2+4+4)

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

6 X 5 = 30

3. Discuss Myasthenia Gravis. Justify the use of Physostigmin in the treatment of Myasthenia Gravis.
4. Describe the physiological actions of growth hormone. Explain the effect mediated through insulin like growth factors.
5. Explain the effects of FSH and LH on the follicle.
6. Define referred pain. Explain convergent theory of referred pain.
7. Describe role of hypothalamus in body temperature regulation.
8. Enlist various hearing tests. Explain Brainstem Auditory Evoked Responses (BAER)

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

9. Enumerate the functions of Astrocytes
10. Define & classify motor unit.
11. Enlist hyperglycemic hormones.
12. Enumerate the functions of cortisol in the body.
13. What are the components and functions of blood testes barrier.
14. Enumerate secondary sexual characters in females
15. Discuss clinical features of spinal shock.
16. Define EEG. Briefly explain waves of EEG with their frequency.
17. What is dominant hemisphere? Describe its functions.
18. What are free radicals and their effects on the body?

Jan-21

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**PHYSIOLOGY – PAPER - II
QP CODE: 1004**

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

2x10=20

1. Describe the connections and functions of Basal ganglia. Add a note on Parkinsonism
2. Describe the actions and regulation of secretion of growth hormone. Add a note on effects of its hyposecretion

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

10x5=50

3. Effects of Epinephrine & Nor epinephrine.
4. Ovulation
5. Hyperthyroidism.
6. Cerebrospinal Fluid.
7. Milk Ejection Reflex.
8. Functions of the Cerebellum .
9. Consequences of insulin deficiency
10. Errors of refraction and their corrections
11. EEG
12. Spinal shock

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

10x3=30

13. Synaptic inhibition
14. Myasthenia gravis
15. Blood-testis barrier
16. Functions of ovaries
17. Tetany
18. Sperm capacitation
19. All-or-None law
20. Impedance matching
21. Pathway for taste
22. Rigor mortis