

May 2021

**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. A 53-year-old man presents with chest pain on exertion that resolves after a few minutes of rest. He has been experiencing this for two months. He describes the pain as a “squeezing” sensation that sometimes radiates towards his neck and jaw.
 - a. What is the diagnosis?
 - b. Explain arterial supply of heart.
 - c. Describe the characteristic features of coronary blood flow and its regulation. (1+2+7)
2. Discuss the various lung function tests. Give their clinical significance. Add a note on ventilation – perfusion ratio. (4+4+2)

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

6 X 5 = 30

3. Enumerate body fluid compartments and their measurements.
4. Explain the role of hyperbaric oxygen therapy in different hypoxia.
5. Discuss the gastric emptying and factors regulating gastric emptying.
6. What are the rights and responsibilities of patients.
7. Describe the ventricular muscle Action Potential.
8. Discuss micturition reflex and applied aspect.

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

10 X 3 = 30

9. Gibbs Donnan effect
10. Cause of Hypovolemic shock.
11. Significance of Vagal escape.
12. List GI hormones and actions of gastrin.
13. What is Enterohepatic circulation
14. Define Facilitated diffusion.
15. Functions of Saliva.
16. Functions of B Lymphocytes.
17. Endoplasmic reticulum functions.
18. Cause of acute mountain sickness.

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MBBS PHASE - I EXAMINATION

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

2x10=20

1. What is Erythropoiesis. Name the sites of erythropoiesis in an adult. Describe the process and the factors affecting it.
2. Define cardiac output and cardiac reserve. Describe the factors regulating cardiac output.

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

10x5=50

3. Enumerate different modes of transport across cell membrane. Explain active transport.
4. Structure and functions of thrombocytes.
5. How is Carbon Dioxide transported in blood? Describe Chloride shift.
6. Asphyxia
7. What are the changes seen during acclimatization to high altitude?
8. Enumerate the properties of Cardiac Muscle. Explain the importance of long refractory period.
9. What is peripheral resistance? What are the factors influencing it?
10. Deglutition.
11. Composition and functions of bile
12. Describe the peculiarities of renal circulation. Mention significance of autoregulation.

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

10x3=30

13. Name two anti coagulants and their mode of action.
14. Laboratory classification of anemia
15. Einthoven's triangle
16. What is achalasia cardia? Mention its cause.
17. What are choloretics and cholegogues? Give examples
18. Lung compliance: definition, normal value and importance
19. Mention various lung volumes and capacities with their normal values
20. Draw a neat and labeled diagram of cell membrane
21. Mention the functions of a) Endoplasmic Reticulum b) Golgi apparatus c) Lysosome
22. Dead space air: definition, types, values and importance

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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. With the help of a neat labeled diagram explain how the pain sensation is carried from right big toe. Explain the role of cerebral cortex in interpretation of pain. Add a note on referred pain. (5+2+3)
2. A 19-year old worker was repeatedly complaining of severe weakness, dizziness, and sleepiness during the preceding 4 weeks of camp. In a previous episode 3 weeks earlier, he had drowsiness and generalized tiredness he reported unquenchable thirst, and the repeated need to urinate.
 - i. What is the cause?
 - ii. Discuss the mechanism & physiological actions of the hormone
 - iii. Describe the tests you advise to diagnose the cause? (2+6+2)

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

6 X 5 = 30

3. Enumerate the properties of synapse, discuss any two.
4. Explain physiology of aging and theories of aging.
5. Discuss role of auditory pathway in normal hearing? What are the clinical causes?
6. Describe how Central nervous system regulates the behavior & emotions.
7. Explain the hormonal changes in menstrual cycle.
8. Physiological actions of Aldosterone.

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

10 X 3 = 30

9. Functions of Sertoli cells.
10. Glucocorticoides role in immunity.
11. Functions of Pineal gland .
12. Thalamic pain.
13. Contractile proteins of skeletal muscle.
14. Inverse stretch reflex.
15. Tuning fork tests .
16. Classification of contraceptive methods.
17. Theories of Colour vision.
18. Myasthenia Gravis.

Mar-2021

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

[Time : 3 Hours]

[Max.Marks : 100]

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 nuclei, connections and functions of basal ganglia with diagram. Add a note on Parkinsonism
2. Discuss functions and regulation of secretion of growth hormone. Add note on effects of its abnormal secretion

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

10x5=50

3. Describe the properties of reflexes.
4. Features of cerebellar dysfunction.
5. EEG.
6. Contents and functions of middle ear.
7. Olfactory pathway.
8. Visual pathway.
9. Hormonal regulation of blood glucose level.
10. NM junction.
11. Effects of hyposecretion of thyroid hormones
12. Menstrual cycle.

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

10x3=30

13. Brown Sequard syndrome.
14. Visual acuity: definition and factors influencing it.
15. Presbyopia and its correction.
16. Differences between osmotic and pressure diuresis
17. Clinical features of Cushing's syndrome.
18. Saltatory conduction of nerve impulse
19. Gasser and Erlanger's classification of nerve fibres.
20. List the functions of testes and ovaries
21. Mechanism of action of Intra Uterine Contraceptive Devices.
22. Mode of regulation of core body temperature.