

April-2022

**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. Draw an oxygen–hemoglobin dissociation curve. Describe the effects of increased  $PCO_2$ ,  $H^+$  concentration, and temperature on the oxygen–hemoglobin dissociation curve. How are these effects adaptive for oxygen unloading in the tissues? (4+3+3)
2. A 66-year-old man sought medical care at the hospital due to severe chest pain lasting for 24 hours. The patient was aware of being hypertensive and was a smoker. Without any prior symptom, he started to have severe chest pain and sought emergency medical care after about 24 hours, due to pain persistence.
  - a. What is the cause for chest pain?
  - b. Discuss the physiological changes of the chest pain?
  - c. List the ECG changes that will be seen in this case? (2+5+3)

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

**6 X 5 = 30**

3. Outline intrinsic pathway of clotting. Add a note on anticoagulants
4. Enumerate cardiac muscle properties. Illustrate Pacemaker potential in the cardiac muscle.
5. Discuss the role of counter current mechanism in the formation of concentrated urine? Add a note on Diuresis?
6. What is ventilation perfusion ( $VA/Q$ ) ratio & its normal value? What are the effects produced due to changes in the ventilation perfusion ratio?
7. Illustrate the neural reflexes causing increased salivary secretion.
8. Doctor must show empathy towards patient. Justify?

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

**10 X 3 = 30**

9. Define resting membrane potential. Give its values in four different types of cells
10. What is Gap junction? Enumerate its functions.
11. Enumerate different types of hemoglobin.
12. Enlist different types of T cells and their functions
13. Hyperkalemia could be fatal, justify.
14. Enumerate baroreceptors functions.
15. Define Cystometrogram. Mention its significance
16. Enumerate the functions of respiratory system.
17. Define facilitated diffusion & its importance.
18. Enumerate the functions of large intestine.

Apr 1, 2022

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

[Time: 3 Hours]

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

**PHYSIOLOGY – PAPER – II  
QP CODE: 1014 – 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. Mr. Gangadhar is a 68 year old male. He is a retired farmer complaining of recent trouble with balance. Slight masked face, muscular deconditioning and mild dysarthria. There was mild left resting hand tremor which increased while discussing with him. On observation he had moderate kyphotic forward head posture.
  - a. What is the cause?
  - b. Explain the physiological basis of this condition?
  - c. What is the mode of treatment? (2+6+3)
  
2. Enumerate the values of normal serum calcium levels and list the hormones that regulate serum calcium levels.
  - a. Explain in detail the actions and regulation of Parathormone
  - b. Add a note on hypocalcemic Tetany. (2+6+2)

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

**6 X 5 = 30**

3. Describe role of Neuro muscular junction in impulse transmission.
4. Enumerate functions of Testosterone and its clinical abnormalities.
5. Discuss the Errors of Refraction and their correction.
6. Describe physiological basis for Brown Sequard syndrome.
7. Difference between actions of Sympathetic and Parasympathetic Nervous System.
8. Physiological consequences of Sedentary Lifestyle.

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

**10 X 3 = 30**

9. Enumerate the Functions of middle ear.
10. Types of Aphasias.
11. Types & Causes of Diabetes Mellitus.
12. Metabolic actions of Glucocorticoids.
13. Milk ejection reflex.
14. Wallerian degeneration.
15. Physiological actions of Oral contraceptive pills.
16. Cause and features of Grave's disease.
17. Physiology of Taste pathway.
18. Role of R.E.M. Sleep.