

JAN-2024

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**

1. A 57 year-old male lorry driver, presented to his local emergency department with a 20-minute episode of diaphoresis and chest pain. The chest pain was central, radiating to the left arm & crushing in nature. He used to smoke 20 cigarettes daily, but was not aware of any other cardiovascular risk factors. Blood pressure was 180/110 mmHg, heart rate was 83 bpm & regular, Oxygen saturation was 97%. The ECG showed ST elevation in leads V2-V6.
 - a. What is the likely diagnosis?
 - b. Describe the phasic nature of coronary blood flow? (2+5+3)
 - c. Explain the regulation of coronary blood flow
2. With the help of a neat & labelled diagram showing organization of respiratory neurons in the brain, discuss neural regulation of respiration. Add a note on effects of lesions at different levels of brain on respiration (2+5+3)

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

3. A 38 year old female presenting with history of fever, vomiting & diarrhoea with dry tongue & loss of skin elasticity since two days.
 - a. What is the provisional diagnosis?
 - b. Explain distribution and ionic composition of body fluid compartments. (2+3)
4. A new-born baby made several strong respiratory movements to achieve normal breathing. Subsequently investigations showed low thyroid and cortisol levels in his plasma, X-ray chest revealed many areas in which alveoli were collapsed.
 - a. What is the diagnosis?
 - b. How this condition can be treated using your knowledge of Physiology? (2+3)
5. List the various types of Leucocytes found in the blood. Discuss major functions & variations of each type.
6. ESR: Definition, Normal values, Factors influencing it & Significance
7. Regulation of secretion of pancreatic juice
8. Discuss about roles of an Indian Medical Graduate

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

9. Define the following a. Homeostasis b. Apoptosis
10. List the differences between Diffusion & Osmosis with suitable examples
11. Draw a neat & labeled diagram of Jugular Venous Pulse tracing
12. Caisson's Disease: Cause, Features & Physiologic basis of treatment
13. List the functions of saliva
14. Enzymes acting on protein
15. List the functions of kidneys
16. GFR: Definition, Normal value & Factors influencing it
17. List the differences between facultative & obligatory renal reabsorption of water
18. Draw a neat & labeled diagram to depict pressure & volume curve of urinary bladder

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[Time :3 Hours]

[Max. Marks: 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 number in left side of margin

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

2 X 10 = 20

1. A man aged 65 years complained of difficulties in movement and coordination, without clear weakness in musculature. He also experienced loss in balance, decomposition of movement. He had previous episodes of functional limitations and slurring and slowness of speech.
 - a. Explain the divisions, connections of cerebellum.
 - b. Describe functions and dysfunctions of cerebellum (5+3+2)
2. Describe the actions and regulation of secretion of thyroid hormones. Add a note on features of abnormal secretion of thyroid hormones (3+3+4)

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

6 X 5 = 30

3. Define Sleep and its stages. Explain normal waves of EEG in REM, NREM sleep
4. Explain the functions and factors regulating secretion of Aldosterone.
5. What is referred pain? Explain two theories of referred pain
6. Describe the role of hormones in menstrual cycle.
7. Brown Sequard syndrome: Definition and Description of lesion at different levels
8. Explain the visual pathway. Describe the visual field defects at various levels of visual pathway

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

10 X 3 = 30

9. A 16 year old college boy consults an ophthalmologist because he is not able to see the letters written on the black board. He is able to read the text book.
 - a. What tests will be performed by the ophthalmologist? b. What advice should be given to the boy?
10. Role of Insulin in preventing Diabetes Mellitus.
11. Give reason for classifying milk ejection as a neuroendocrine reflex.
12. Enumerate different contraceptive methods, name permanent methods.
13. What are the symptoms of heat stroke.
14. Compare cardiorespiratory changes during isotonic and isometric exercise
15. Explain errors of refraction and their correction
16. List the differences between Generator Potential and Action Potential
17. What are the features of Thalamic syndrome.
18. Blood brain Barrier : Definition, Diagram and Significance