January 2018

# BLDE UNIVERSITY MBBS PHASE - I EXAMINATION

[Time: 3 Hours]

[Max.Marks: 100]

## PHYSIOLOGY – PAPER - I OP CODE: 1023

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 No. in left side of margin.

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

2x10=20

- 1. Classify T-lymphocytes. Explain mechanism of cellular immunity.
- 2. Define cardiac output and cardiac index. Explain the factors influencing it. Add a note on method to measure it in human beings.

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

10x5=50

- 3. Chemical regulation of respiration
- 4. Normal waves and intervals in ECG
- 5. Functions and regulation of secretion of pancreatic juice
- 6. Oxygen Hemoglobin disassociation curve
- 7. Deglutition
- 8. Hypovolemic shock
- 9. Coronary blood flow
- 10. Acclamatization to low pO<sub>2</sub> at high altitude.
- 11. Feedback mechanisms
- 12. Juxta-glomerular apparatus.

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

- 13. Hagen Poiseuille's formula
- 14. Lung Surfactant.
- 15. Give laboratory classification of anaemia with examples.
- 16. Enumerate the functions of bile
- 17. Cystometrogram
- 18. List the differences between ICF and ECF
- 19. GFR: definition, normal value and factors influencing it
- 20. Mention junctional tissue of heart
- 21. Draw a neat and labeled diagram to show various lung volumes and capacities.
- 22. Cross matching

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## PHYSIOLOGY – PAPER - I OP CODE: 1013

Your answer should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

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Write Question No. in left side of margin.

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

2x10=20

- 1. Define cardiac output. Mention its normal value. Describe the regulation of cardiac output.
- 2. Describe oxygen transport in blood. Add a note on Bohr's effect.

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

10x5=50

- 3. Describe the morphology and functions of Neutrophil.
- 4. Define hypoxia. Classify hypoxia with examples. Name the hormone released due to hypoxia.
- 5. Describe the role of renin angiotensin system in the regulation of blood pressure.
- 6. Describe the regulation of gastric phase of gastric secretion with experimental evidence.
- 7. Lung compliance.
- 8. Deglutition.
- 9. Active transport.
- 10. Origin and spread of cardiac impulse.
- 11. Hypovolemic shock causes, features and mode treatment.
- 12. Renal reabsorption of water.

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

- 13. List the functions of saliva.
- 14. List the factors affecting GFR.
- 15. Mention the sites of baro receptors and their functions.
- 16. Caisson's disease cause, features and mode of treatment.
- 17. Mention normal values and clinical significance of ESR.
- 18. Explain the role of Gastro intestinal hormones in regulation of pancreatic juice.
- 19. Mention the forms in which Carbon Dioxide is transported in blood.
- 20. List the functions of platelets.
- 21. PR interval.
- 22. Cystometrogram.

# BLDE UNIVERSITY MBBS PHASE - I EXAMINATION

January 2018

[Time: 3 Hours]

[Max.Marks: 100]

## PHYSIOLOGY – PAPER - II OP CODE: 1024

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 No. in left side of margin.

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

2x10 = 20

- 1. What is sarcomere? Describe the molecular basis of muscular contraction in skeletal muscle. Add a note on myasthenia gravis. 1 + 6 + 3
- 2. With the help of a neat labeled diagram explain the optic pathway. Explain the effects of lesion at optic chiasma and right optic tract. 6+4

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

10x5=50

- 3. Referred pain.
- 4. Brown-Sequard Syndrome.
- 5. EEG
- 6. Electrical events occurring at synapse.
- 7. Mechanism of action and functions of insulin.
- 8. Hormonal regulation of blood calcium level.
- 9. Actions of thyroid hormones.
- 10. Hormonal contraceptives used by a female.
- 11. Functions of thalamus
- 12. Strength Duration Curve.

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

- 13. Cerebrospinal fluid.
- 14. Impedance matching.
- 15. Hypermetropia.
- 16. Mechanisms of colour vision.
- 17. Functions of spinocerebellum.
- 18. Functions of prolactin.
- 19. Changes occurring during puberty in male.
- 20. Differences in cardio-vascular effects of adrenaline & nor adrenaline.
- 21. Erlanger-Gasser classification of nerve fibers.
- 22. Acromegaly.

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## BLDE UNIVERSITY MBBS PHASE - I EXAMINATION

[Time: 3 Hours]

[Max.Marks: 100]

## PHYSIOLOGY – PAPER - II OP 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 No. in left side of margin.

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

2x10=20

- 1. Define Reflex. Give its clinical classification. Explain its properties.
- 2. Describe the synthesis, regulation and functions of thyroid hormones.

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

10x5=50

- 3. Describe the errors of refraction and their corrections with the help of neat and labeled diagrams.
- 4. Describe the functions of posterior pituitary hormones.
- 5. Olfactory pathway.
- 6. Describe the contents and functions of middle ear.
- 7. Describe the functions of cortisol.
- 8. Explain referred pain with an example. Describe the theories of referred pain.
- 9. Functions of Thalamus.
- 10. Describe the actions of growth hormone.
- 11. Describe the sliding filament theory of skeletal muscle contraction.
- 12. Describe the ovarian changes that take place during menstrual cycle with the help of a neat and labeled diagram.

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

- 13. Explain the cause for aldosterone escape
- 14. Explain the significance of rigor mortis
- 15. Mention the receptors for hearing, vision and taste.
- 16. List the methods of contraception in male individuals.
- 17. List the features of hypocalcemic tetany.
- 18. List the changes seen in accommodation reflex.
- 19. Mention the cause and treatment of Parkinson's disease.
- 20. List the functions of hypothalamus.
- 21. Mention the functions of testosterone.
- 22. Explain basis of one pregnancy test.