PG-June-2016

### BLDE UNIVERSITY POST GRADUATE DEGREE EXAMINATION

[Time: 3 Hours]

[Max.Marks: 100]

#### MD PHYSIOLOGY - PAPER - I OP CODE: 5005

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

(2x20=40 marks)

- 1. Write in detail the physiology of Ageing. Add a note increased life expectancy.
- 2. Define Gene. What are coding and non-coding genes? Explain the role of histone code in the deferential expression of genes in multi-cellular organism. Add a note on present status of Gene Therapy.

#### Short essay (Three gaps between answers)

(6x10=60 marks)

- 3. Role of Mitochondria in the biochemical process.
- 4. Diffusion.
- 5. Gibbs-Donnan equilibrium.
- 6. Second Messenger System in signal transduction.
- 7. Write about the contribution of Sir Starling E.H and Sir Wilhelm Einthoven to the field of physiology.
- 8. The role of sodium potassium pump (Na/Kase pump)

# BLDE UNIVERSITY POST GRADUATE DEGREE EXAMINATION

[Time: 3 Hours]

[Max.Marks: 100]

### MD PHYSIOLOGY – PAPER - II OP CODE: 5006

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

(2x20=40 marks)

- 1. Describe in detail the principles underlying the recording and interpretation of electrocardiogram in frontal and transverse plane. Add a note on ECG changes in acute myocardial infarction
- 2. Classify immunity. Write in detail about cell mediated and humoral immunity. Add a note on immunological aspects of HIV

Short essay (Three gaps between answers)

(6x10=60 marks)

- 3. Counter current exchange & multiplication mechanisms in kidney
- 4. Deglutition
- 5. Physiological shunts and dead spaces
- 6. Cardiovascular changes in isotonic exercise
- 7. Exocrine pancreas
- 8. Nitrogen narcosis

# BLDE UNIVERSITY POST GRADUATE DEGREE EXAMINATION

[Time: 3 Hours]

[Max.Marks: 100]

### MD PHYSIOLOGY – PAPER - III OP CODE: 5007

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

(2x20=40 marks)

- 1. Describe in detail the role of Hypothalamus in neuro-endocrine regulation of reproduction and metabolism. Add a note on circadian rhythm
- 2. Describe the neural circuitry of cerebellum in modulation of motor activity and motor learning.

#### Short essay (Three gaps between answers)

(6x10=60 marks)

- 3. Thalamic syndrome.
- 4. Explain the Biosynthesis, Metabolism and Regulation of Catecholamines.
- 5. G Proteins.
- 6. Excitation Contraction Coupling.
- 7. Kluver Bucy Syndrome.
- 8. Effect of insulin on carbohydrate, protein and lipid metabolisms.

## BLDE UNIVERSITY POST GRADUATE DEGREE EXAMINATION

[Time: 3 Hours]

[Max. Marks: 100]

#### MD PHYSIOLOGY – PAPER - IV OP CODE: 5008

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

(2x20=40 marks)

- 1. Explain the role of FSH and LH in male and female reproduction. Describe various tests of detection of ovulation?
- 2. Describe the role of each cell of neural network of retina in initial signal transaction in the eye. Explain the correlation between type of visual defect and site of lesions in the visual pathway.

#### Short essay (Three gaps between answers)

(6x10=60 marks)

- 3. Germinal angiotensin.
- 4. Patho-physiology of ischemic heart disease.
- 5. Human physiome project.
- 6. Application of yoga in treatment of lifestyle diseases.
- 7. Leptins.
- 8. Sensory substitution techniques in congenitally blind