

APY-2011

BLDE UNIVERSITY

POST GRADUATE DEGREE EXAMINATION

[Time : 3 Hours]

[Max. Marks : 100]

MD PHYSIOLOGY – PAPER - I

QP 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.

**Long essay**

**(2x20=40 marks)**

1. Explain the various mechanisms involved in maintenance of acid-base balance of the body fluids.
2. Discuss recent advances in cellular Physiology

**Short essay**

**(6X10=60 marks)**

3. Discuss neuronal circuits for processing information
4. Discuss the haemodynamics of Circulation.
5. Use of Radio-active isotopes in clinical medicine.
6. Feedback mechanisms form the backbone of Physiology. Discuss.
7. Describe the biophysics of nerve membrane potential at rest & after excitation.
8. Antioxidants and balanced diet.

APR-2011  
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POST GRADUATE DEGREE EXAMINATION

[Time : 3 Hours]

[Max.Marks : 100]

MD PHYSIOLOGY – PAPER - II

QP 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.

Long essay

(2x20=40 marks)

1. Explain the normal ECG in detail. Add a note on cardiac arrhythmias.
2. Describe the physiological principles involved in blood transfusion and mismatched blood transfusion

Short essay

(6X10=60 marks)

3. Discuss the pulmonary function tests in detail. Add a note on their clinical application.
4. Describe in detail homeometric and heterometric regulation of the heart with special reference to Frank- Starlings law.
5. Describe how biological thermostats function in extreme climatic conditions.
6. Describe the reticulo-endothelial system in detail.
7. Describe the composition, secretion, actions and regulation of pancreatic secretion.
8. Describe the mechanism of secretion of HCl in the stomach. Discuss the physiological basis of treatment of hyper-acidity.

POST GRADUATE DEGREE EXAMINATION

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[Max.Marks : 100]

MD PHYSIOLOGY – PAPER - III

QP 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.

Long essay

(2x20=40 marks)

1. What is a sarcomere? Describe the molecular basis of muscular contraction in skeletal muscle. Add a note on myasthenia Gravis.
2. What are the functional divisions of cerebellum? Mention the parts, afferent and Efferent connections and functions of spinocerebellum. Add a note on the effects of lesion of flocculonodular lobe.

Short essay

(6X10=60 marks)

3. Describe the Neuro-endocrine interrelationships.
4. Mention the various Brodman's (numbers) in the frontal lobe. Describe briefly each one.
5. Wall and Melzak's – gate control mechanism of pain
6. Role of Pyramidal and Extra pyramidal system in Babinski sign
7. Law of Projection
8. Gasser and Erlanger's classification

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[Max. Marks : 100]

MD PHYSIOLOGY – PAPER - IV

QP 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.

Long essay

(2x20=40 marks)

1. Discuss the role of inner ear in hearing. Add a note on tests of hearing and deafness.
2. Describe mammary gland structure and functions. Add a note on regulation of milk secretion.

Short essay

(6X10=60 marks)

3. Role of hormones on uterine endometrium.
4. Impotence and infertility
5. Describe physiological adjustments during pregnancy.
6. Discuss clinical applications of non-invasive techniques in Physiology
7. Discuss patho-physiology of pain & its clinical management.
8. Discuss the physiology and management of stress.