

**SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH**

**(A DEEMED TO BE UNIVERSITY)**

**Post Graduate Degree Examination – November - 2013**

**Time : 3 Hrs.**

**[Max. Marks : 100]**

**M.D PHYSIOLOGY**

**PAPER - I**

**Q.P Code : 1201**

*Your answers should be specific to the questions asked.  
Draw neat labelled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 20 = 40 Marks**

1. Explain the body fluid compartments and measurement of body fluid volumes.
2. What is homeostasis? Explain the regulatory mechanisms operating to maintain it.

**SHORT ESSAY**

**6 X 10 = 60 Marks**

3. Cyclic AMP.
4. Transcription.
5. Resting membrane potential and action potential.
6. Oncotic Pressure and its importance.
7. A.S.Paintal's contribution to Physiology.
8. Apoptosis.

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**M.D PHYSIOLOGY**

**PAPER - II**

**Q.P Code : 1202**

*Your answers should be specific to the questions asked.*

*Draw neat labelled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 20 = 40 Marks**

1. Describe the various types of immunity. Add a note on the physiological basis of immunisation.
2. Describe the regulation of arterial blood pressure. Discuss the pathophysiology of hypertension.

**SHORT ESSAY**

**6 X 10 = 60 Marks**

3. Describe electrocardiography and its clinical utility.
4. Special features and regulation of coronary circulation.
5. Micturition reflex.
6. Acidification of urine.
7. Compliance of lung in health and disease.
8. jaundice.

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**PAPER - III**

**Q.P Code : 1203**

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**LONG ESSAY**

**2 X 20 = 40 Marks**

1. Describe the functional divisions, principle pathways and functions of the basal ganglia. Add a note on Parkinson's disease.
2. Describe the endocrine regulation of calcium homeostasis in the body. Explain the clinical disorders of calcium deficiency.

**SHORT ESSAY**

**6 X 10 = 60 Marks**

3. Synaptic Plasticity and learning.
4. Complementary specialization of cerebral hemispheres.
5. Evoked potentials.
6. Endocrine regulation of growth and its disorders.
7. Hormonal regulation of glucose homeostasis.
8. Excitation- Contraction coupling in skeletal, cardiac and smooth muscle.

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**M.D PHYSIOLOGY**

**PAPER - IV**

**Q.P Code : 1204**

*Your answers should be specific to the questions asked.  
Draw neat labelled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 20 = 40 Marks**

1. Describe the phases of menstrual cycle. What hormones regulate it?  
What are the abnormalities of menstruation?
2. Explain the primary taste sensations. Trace the pathway of taste sensation. What are the abnormalities of taste?

**SHORT ESSAY**

**6 X 10 = 60 Marks**

3. Blood Testis barrier and its importance.
4. Organ of Corti.
5. Otolithic Organs.
6. Human Chorionic Gonadotrophins.
7. Menopause.
8. Purkinje Sanson images.

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