SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)
M.B.B.S. PHASE – I Degree Examination – January-2015

Time : 3 Hrs. **[Max. Marks : 100]**

PHYSIOLOGY PAPER I

Q.P Code : SDUU -103

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

LONG ESSAY **2 X 10 = 20 Marks**

1. Name the forms in which oxygen is transported in blood. Describe the mechanism of oxygen transport and add a note on oxygen dissociation curve.
2. Define cardiac cycle. Mention its normal duration. Describe the sequence of events during each cardiac cycle.

SHORT ESSAY **10 X 5 = 50 Marks**

3. Endoplasmic reticulum.
4. Functions of platelets.
5. Role of lymphocytes in the immune system.
6. Etiological and morphological classification of anemia.
7. Intrinsic pathway of coagulation.
8. Movements of small intestine.
9. Glomerular filtration rate.
10. Cytometrogram.
11. Regulation of salivary secretion.
12. Hypoxic Hypoxia.

SHORT ANSWERS **10 X 3 = 30 Marks**

13. Functions of juxtaglomerular apparatus.
14. Define cyanosis. Explain why cyanosis cannot be seen in anemia.
15. Define periodic breathing. List its types with examples.
16. Enumerate the gastrointestinal hormones.
17. Nerve supply of the heart.
18. Neurogenic shock.
19. Stages of deglutition.
20. Cushing's reflex.
21. Laplace law-definition and applications.
22. Cardiac reserve.

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PHYSIOLOGY - PAPER II

Q.P Code : SDUU -104

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

LONG ESSAY **2 X 10 = 20 Marks**

1. Discuss the regulation and actions of hormones that influence calcium levels in blood. Outline the features and the clinical tests for diagnosis of hypocalcemia in man.
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 **10 X 5 = 50 Marks**

3. Neuroendocrine control of puberty.
4. Adrenogenital syndrome.
5. Internal Capsule.
6. RAS.
7. Motor homunculus.
8. Excitation contraction coupling.
9. Contraceptives based on hormonal activity.
10. Mode of action of Testosterone.
11. Foetoplacental unit.
12. Properties of Skeletal Muscle.

SHORT ANSWERS **10 X 3 = 30 Marks**

13. Krauses corpuscles.
14. IPSP.
15. Trigeminal neurolgia.
16. Visual acuity.
17. Glaucoma.
18. Bitemporal hemianopia.
19. Voltage gated sodium channels.
20. Rigor Mortis.
21. Wallerian Degeneration.
22. Dyenin.

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PHYSIOLOGY– PAPER I

Q.P Code : RS -103

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

LONG ESSAY (Answer any 2 only) **2 X 10 = 20 Marks**

1. Define cardiac cycle. Describe the pressure-volume changes in the left ventricle during cardiac cycle. Add note on heart sounds.
2. Name the clotting factors. Describe the intrinsic pathway of blood clotting.
3. Describe the neural regulation of respiration. Add a note on periodic breathing.

SHORT ESSAY (Answer any 10 only) **10 X 5 = 50 Marks**

4. Describe movements of small intestine.
5. Mention the composition of gastric juice and explain its function.
6. Explain Tubulo-Glomerular feed back mechanism.
7. Explain counter current exchangers in kidney.
8. Transport mechanisms across cell membrane.
9. Describe the role of lymphocytes in immune mechanisms.
10. Explain the changes that occur in acclimatization to high altitude.
11. Conducting system of the heart.
12. Mechanism of quiet inspiration and expiration.
13. Explain the salient features of cerebral blood flow.
14. Describe factors regulating cardiac output.
15. Explain factors regulating Glomerular filtration rate.

SHORT ANSWERS **10 X 3 = 30 Marks**

16. What is steatorrhoea? mention two causes.
17. Choleretics and cholagogues.
18. What is FEV_1 and mention its significance.
19. Define apnoea. Explain how apnoea occurs after voluntary hyper ventilation.
20. Explain triple response.
21. Physiological significance of Frank starling law of heart.
22. List four functions of thrombocyte and list two tests to assess their functions.
23. Mention the effect of mismatched blood transfusion.
24. Write short note on “Aquaporins”.
25. Draw a Cystometrogram.

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PHYSIOLOGY– PAPER II

Q.P Code : RS -104

Your answers should be specific to the questions asked.
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LONG ESSAY (Answer any 2 only) **2 X 10 = 20 Marks**

1. Classify synapse. Explain the steps of transmission across a chemical synapse. Add a note on synaptic delay.
2. Describe the steps of aldosterone synthesis. Explain its role in maintanence of ECF volume and composition. How is its secretion regulated.
3. Explain the molecular basis of skeletal muscle contraction. Add a note on muscle fatigue.

SHORT ESSAY (Answer any 10 only) **10 X 5 = 50 Marks**

4. Composition and functions of Aqueous humour.
5. Sertoli cells.
6. Parkinsons disease.
7. Oral contraceptive pills.
8. Reffered pain.
9. Rem sleep.
10. Glial cells and their function.
11. Impedance matching.
12. Adreno genital syndrome.
13. PTH.
14. Releasing Hormones.
15. Spermatogenesis.

SHORT ANSWERS **10 X 3 = 30 Marks**

16. Taste pathway.
17. Dark adaptation.
18. Deafness.
19. Macular sparing.
20. Functions of cerebellum.
21. Alpha block.
22. Diagram of reflex arc.
23. Cretinism.
24. Actions of oestrogen in non pregnant uterus.
25. Heat loss mechanisms in the body.

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