

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

M.B.B.S. PHASE - I Degree Examination - January-2012

Time: 3 Hrs.

[Max. Marks: 100]

PHYSIOLOGY - PAPER I

Q.P Code: 103 - SDUU

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

LONG ESSAY

 $2 \times 10 = 20 \text{ Marks}$

- 1. Describe the mechanics of normal respiration. Add a note on respiratory distress syndrome
- 2. Define cardiac output. Describe how different factors contribute for the regulation of cardiac output. Add a note on measurement of cardiac output.

SHORT ESSAY

- 3. Glucose reabsorption in renal tubules
- 4. Origin and spread of cardiac impulse
- 5. Role of kidney in pH regulation
- 6. Bleeding and clotting disorders
- 7. Composition and functions of lymph
- 8. Central and peripheral chemoreceptors
- 9. Total peripheral resistance
- 10. Residual volume in lungs and its measurement
- 11. Hormones acting on renal tubules and their actions
- 12. Pharyngeal phase of deglutition

10 X 5 = 50 Marks



SHORT ANSWERS

 $10 \times 3 = 30 \text{ Marks}$

- 13. Micturition reflex
- 14. Functions of thrombocytes
- 15. Renal plasma clearance of (PAH) Para Amino Hippuric acid and urea
- 16. Special conducting system in mammalian heart
- 17. Oxygen dissociation curve and shift to the right
- 18. ECG (Electrocardiogram) from aVR lead and explain ventricular complex in it
- 19. Blood indices and their significance
- 20. Resting membrane potential and normal values
- 21. Gastric emptying
- 22. Anticoagulants acting in vitro and in vivo

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PHYSIOLOGY - PAPER II

Q.P Code: 104 - SDUU

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LONG ESSAY

 $2 \times 10 = 20 \text{ Marks}$

- Describe connections and functions of basal ganglia; add a note on Parkinson's syndrome
- 2. Describe bio-synthesis, actions and regulation of gluco-corticoids.

SHORT ESSAY

 $10 \times 5 = 50 \text{ Marks}$

- 3. Brown sequard syndrome
- 4. Proprioceptors in skeletal muscle
- 5. REM and NREM sleep
- 6. Composition and functions of cerebrospinal fluid
- 7. Biological actions of hypocalcemic hormone
- 8. Hormonal actions on mammary gland tissue in a virgin woman and post-partum woman
- 9. Nerve supply for adrenal medulla and actions of the hormones produced from there
- 10. Clinical picture of hypothyroidism and hypo-pituitarism in a child
- 11. Excitation- contraction coupling mechanism in skeletal muscle
- 12. Compare and contrast generator potential and action potential

SHORT ANSWERS

 $10 \times 3 = 30 \text{ Marks}$

- 13. Degeneration and regeneration in nerve fibre, when the axon is sectioned
- 14. Biological thermostat
- 15. Primary taste sensations
- 16. Motor homunculus
- 17. Synaptic inhibitions
- 18. Macula of internal ear
- 19. Spermatogenesis
- 20. Presbyopia and astigmatism
- 21. Impedance matching in auditory apparatus
- 22. Actions of gonadotropic hormones in male and female

