SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)
M.B.B.S. PHASE – I Degree Examination – July-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. Define and classify immunity. Describe the role of lymphocytes in immunity?
2. Describe the various respiratory centers and the mechanism of nervous regulation of respiration and the reflex associated with it.

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

3. Humoral Immunity.
4. CVS responses to exercise
5. Blood brain barrier.
6. Dead space
7. Functions of saliva
8. Tubulo glomerular feed back.
9. Renal hormones
10. Facilitated diffusion.
11. Renin –angiotensin system.
12. Reticulo endothelial system.

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

13. Name the different body fluid compartments. Give the composition of extracellular and intracellular fluid.
14. Draw schematically how is HCL formed.
15. What are the effects of Incosmpatible blood transfusion?
16. Name the proteolytic enzymes in pancreatic juice.
17. What is standard and Maximal urea clearance? What is their physiological significance? Their values.
18. Name the three experimental methods of studying renal functions and describe one of them.
19. What is timed vital capacity? What is its importance?
20. What is chloride shift? How is this useful?
21. Name the factors influencing coronary circulation. What is meant by phasic flow?
22. Name properties of cardiac muscle. Which property is very well developed?

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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. Trace the corticospinal tract. Describe hemiplegia, quadriplegia and paraplegia.
2. What are the functions of insulin? Discuss the types, etiology, clinical features and management of diabetes mellitus.

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

3. Reticular activating system.
4. EEG.
5. Pain pathways.
6. Cushing's syndrome.
7. Hormones maintaining blood calcium levels.
8. Errors of refraction.
9. Functions of the middle ear.
10. Dark adaptation in the eyes.
11. Spermatogenisis.
12. Oral contraceptives.

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

13. Amnesia.
14. Taste pathway.
15. Color blindness.
16. Milk ejection reflex.
17. Resting membrane potentials.
18. Myasthenia gravis.
19. Classification of nerve fibers.
20. Types of skeletal muscle fibers.
21. Smooth muscle.
22. Actions of growth hormone on protein and carbohydrate metabolism.

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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 mean Arterial blood pressure. Explain the long term regulation of blood pressure.
2. Discuss the various lung functions tests.
3. Describe the steps of blood clotting by different pathways.

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

4. Explain Dysbarism.
5. Define diueresis. Explain the various types of diuretics.
6. Define GFR. Explain any one method to measure GFR.
7. Explain how carbon dioxide is carried in the blood.
8. Write briefly on abnormal hemoglobin.
9. What is timed vital capacity. Explain its significance in diagnosis.
10. Explain the enterohepatic circulation and its significance.
11. What is asphyxia - Classify.
12. Classify leucocytes. Explain the role of eosinophils in blood.
13. Explain the various factors regulating maintenance of erythrocytes.
14. Explain the importance of urea in concentration of urine.
15. Draw a neat labeled diagram of cardiac cycle and depict the relation of pressure, volume and ECG changes with phases of cardiac cycle.

SHORT ANSWERS (No Choices) **10 X 3 = 30 Marks**

16. Name muscles of respiration. Explain the role of accessory muscles in respiration.
17. Explain Rh. incompatibility.
18. Explain briefly the cystometogram.
19. Explain the importance of dietary fibre in the diet.
20. What is albumin globulin ratio. Explain its significance.
21. What is compliance. Enumerate two factors decreasing compliance and two factors which increase lung compliance.
22. How is the pulsatile flow converted to streamline blood flow in circulation.
23. Where are the respiratory centres located. What is the importance of apneustic centre.
24. What is pace maker potential. Explain.
25. Explain the basis of RMP in the cell.

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PHYSIOLOGY– PAPER II

Q.P Code : RS -104

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. Enumerate the hormones secreted by endocrine pancreas. Write on effect of insulin on carbohydrate metabolism and write a note on diabetes mellitus.
2. Describe the nuclei, connections and functions of basal ganglia and features of the diseases of Basal ganglia.
3. Draw and label optic pathway. Write in detail about the lesions of optic pathway.

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

4. Inhibitory neurotransmitter.
5. Blood brain barrier.
6. What are muscle proteins.
7. Mechanism of dark and light adaptation.
8. Auditory pathway.
9. Excitation contraction coupling.
10. Changes seen in uterus during menstrual cycle.
11. Muscles of the ear and their functions.
12. Milk ejection reflex.
13. Mention the hormones acting on Calcium metabolism and write about 1, 25 dihydroxycholecalciferol.
14. Functions of cortisol.
15. What is circadian rhythm. Give two examples.

SHORT ANSWERS (No Choices) **10 X 3 = 30 Marks**

16. Cushings syndrome.
17. Troponin.
18. Power - stroke.
19. Trichromatic theory of color vision.
20. Errors of refraction.
21. EEG waves.
22. Extra pyramidal tracts.
23. Reflex arc.
24. Touch sensation.
25. Speech.

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