SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)
M.B.B.S. PHASE – I Degree Examination – January-2017

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

PHYSIOLOGY– PAPER I

Q.P Code : RS -103

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

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

1. Describe the events in cardiac cycle. Add a note on atrial pressure changes during cardiac cycle.
2. Describe the process of coagulation of blood. Write a note on fibrinolytic system.
3. Describe the organization of respiratory centers and their role in the maintenance of normal rhythmic respiration.

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

4. –VE (Negative) feedback mechanism.
5. Name different plasma proteins. Their functions.
6. What is normal daily requirement of iron? Describe the absorption, transport and storage forms of iron. Add a note on iron deficiency anemia.
7. Write in detail the structure and function of respiratory membrane..
8. Acclimatization.
9. Write about cardiac muscle action potential.
10. Phases of gastric juice secretions.
11. Counter current system.
12. Erythroblastosis fetalis..
13. Baroreceptor mechanism.
14. Enteric nervous system.
15. Juxta glomerular apparatus.

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

16. Origin and spread of cardiac impulse.
17. Axon reflex.
18. Surfactant.
19. Dead space.
20. Aquaporins.
21. Brunners gland.
22. Non respiratory function of lung.
23. Hering breuer reflex.
24. What is vagal tone.
25. Gall stones.

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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 Two) **2 X 10 = 20 Marks**

1. Describe all the ascending tracts in the spinal cord. Trace the pathway for fine touch sensation.
2. What is the normal calcium level. Explain the role of parathormone in calcium metabolism. Add note a osteoporosis.
3. Explain the effect of hormonal changes occurring during menstrual cycle on the endometrial changes of uterus.

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

4. Write short notes on referred pain.
5. Name two inhibitory neuro transmitters. Explain the mechanism of action.
6. Explain how insulin acts at cellular level.
7. Explain the role of ADH in regulating water balance.
8. What is fovea centralis. What is macular sparing.
9. Explain the traveling wave theory of hearing.
10. Explain the theories of colour vision. Add a note on nyctalopia.
11. Enumerate the hearing tests. Add a note on conduction deafness with example.
12. Enumerate the functions of reticular formation.
13. Importance of otolith organ.
14. Importance of REM sleep.
15. Explain the hormones of pituitary acting on ovary.

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

16. List the features of parkinsons disease.
17. Explain the steps in mechanism of action of thyroxine.
18. List the changes occurring in the eye during accommodation of near vision.
19. Trace the auditory pathway. Add a note on deafness.
20. Explain the function of prefrontal lobe.
21. Draw a neat labeled diagram of muscle spindle.
22. Explain turners syndrome.
23. Enumerate the differences between Upper motor neuron lesion and Lower motor neuron lesion.
24. Define reflex. Enumerate the properties of reflex.
25. Explain receptor potential on the pacinian corpuscle.

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PHYSIOLOGY - PAPER I

Q.P Code : SDUU-103

Your answers should be specific to the questions asked.
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LONG ESSAY **2 X 10 = 20 Marks**

1. Describe in detail the salient features of coronary circulation and its clinical application. Add a note on regulation of coronary circulation.
2. Discuss the cell mediated immunity. Add a note of AIDS.

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

3. Describe with an example what is meant by an osmotic diuretic.
4. Explain the importance of lymphatic circulation.
5. Discuss the ventilator response in exercise.
6. Describe the features of dysbarism. Add a note on its prevention.
7. Explain the significance of MMC.
8. Discuss the term stroke volume, Cardiac index.
9. Define and give normal values of end-diastolic volume and end systolic volume.
10. Describe the changes in a fetal circulation after birth.
11. Differentiate between juxta medullary and cortical nephrons. List their functions.
12. Define starling's law. Add a note on its significance.

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

13. Define jaundice and mention its types.
14. Define micelles and chylomicrons.
15. List the functions of lare intestine.
16. List the functions of erythropoietin.
17. Define hypoxia. Mention its types.
18. List the functions of placenta.
19. Where are baroreceptors located? What is its clinical significance?
20. List the special features of pulmonary circulation.
21. Describe briefly the mechanism of glucose reabsorption in renal tubules.
22. Describe the basis of pace maker potential.

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PHYSIOLOGY - PAPER II

Q.P Code : SDUU -104

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

1. List the hormones of thyroid gland. Describe the biosynthesis, secretion and regulation of these hormones.
2. Mention the nuclei, connections and functions of cerebellum.

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

3. Fetoplacental unit.
4. Myxedema.
5. Strength-duration curve.
6. Thalamic syndrome.
7. Reflex ARC.
8. Otolith organs.
9. Young-Helmholtz theory.
10. Colour blindness.
11. Clinical features of parkinsonism.
12. Sarcotubular triad of skeletal muscle.

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

13. Flow chart showing milk-ejection reflex.
14. Tympanic reflex.
15. Myasthenia gravis.
16. Olfactory pathway.
17. Cryptorchidism .
18. Limbic system-components and functions.
19. Differentiate between diabetes mellitus and diabetes insipidus.
20. Aldosterone escape.
21. Short term memory.
22. Enumerate the hypothalamic releasing and inhibiting factors.

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