

SRI DEVRAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)

M.B.B.S Phase-I Degree Examination SEPTEMBER 2019

Time:3 hours

Max Marks:100

PHYSIOLOGY PAPER I

*Your answer should be specific to the question asked
Draw neat and labeled diagrams wherever necessary*

LONG ESSAY

2 X 10 = 20 Marks

1. Define circulatory shock. Describe clinical features of circulatory shock.
Outline the principles of treatment of hypovolemic shock. (2+5+3)
2. With neat labeled diagram describe the hemoglobin oxygen dissociation curve. Explain the effect of exercise on it. (7+3)

SHORT ESSAY

10 X 5 = 50 Marks

3. Give the cause of hemophilia and its presenting symptom. (5)
4. List & Describe the properties of cardiac muscle. (2+3)
5. Describe autoregulation of renal blood flow. (5)
6. List and describe the different types of movements of small intestine. (2+3)
7. Explain the basis of erythroblastosis foetalis. Give principle of prevention and treatment. (3+2)
8. List and describe the functions of surfactant. (2+3)
9. Name the bile salts. List the functions of bile salts. (2+3)
10. Explain the process of H⁺ secretion in the renal tubules. (5)
11. Draw and label a normal ECG recorded from lead II. Describe the waves and intervals in an ECG and its clinical significance. (2+3)
12. Outline the steps of Phagocytosis using flow chart. (5)

SHORT ANSWERS

10 X 3 = 30 Marks

13. Explain the cause of physiological jaundice
14. Explain the relationship between flow, viscosity and radius (Poiseuille-Hagen formula) in a blood vessel.
15. Name 2 hormones acting on renal tubules.
16. Give reason for blood becoming alkaline after meals.
17. What happens to RBC count in high altitude. Why.
18. Explain the role of blood brain barrier in regulation of respiration.
19. Classify Transport across cell membrane with examples
20. Describe mass peristalsis
21. Describe the ventilatory response to breath holding.
22. Define End diastolic volume. Mention its normal volume & give its significance.

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PHYSIOLOGY- PAPER 2

Your answer should be specific to the question asked

Draw neat and labeled diagrams wherever necessary

LONG ESSAY

2 X 10 = 20 Marks

23. Mention the functions of Basal Ganglia explain the cause, feature and treatment of Parkinsonism.(5+1+2+2)
24. List the hormones secreted by the posterior pituitary gland. Describe the functions of each. (2+8)

SHORT ESSAY

10 X 5 = 50 Marks

25. Describe phototransduction(5)
26. Explain the role of Hypothalamus in the food intake.(5)
27. Give an example of positive feedback mechanism & explain
28. Draw a neat labeled diagram of a taste bud. Explain the mechanism of perception of taste.(2+3)
29. Give the cause & explain the basis of the features of Diabetes Mellitus.(1+4)
30. Draw a neat labeled diagram of cross section of spinal cord showing the different ascending tracts.(5)
31. Describe the endometrial changes in menstrual cycle(5)
32. Draw a neat diagram of a neuromuscular junction. In a flow chart represent neuromuscular transmission.(2+3)
33. Give the cause & explain the basis of the features of Graves disease.(1+4)
34. Describe Rigor mortis.(5)

SHORT ANSWERS

10 X 3 = 30 Marks

35. Draw a neat labeled diagram of olfactory receptor (3)
36. Define synapse. Mention 2 types of synapse in nervous system.(1+2)
37. Describe negative feedback in secretion of hormone with an example.(3)
38. List the Clinical tests for hearing.
39. Draw a neat labelled diagram of reflex arc.(3)
40. Name the ascending tracts and sensations carried by them.
41. List the functions of progesterone.
42. Describe Refractory period and give its importance.
43. List the differences between upper and lower motor neuron lesion.
44. List the functional areas of the cerebral cortex and mention the function of each.