



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

M.B.B.S Phase-I Degree Examination – JULY 2018

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 cardiac output and give its normal value Describe the factors determining cardiac output. (3+7)
2. Describe the transport of oxygen in blood. With neat labeled diagram describe the hemoglobin oxygen dissociation curve. Explain the effect of exercise on it. (5+3+2)

SHORT ESSAY

10 X 5 = 50 Marks

3. Define Anaemia. Classify Anaemia in morphological basis giving suitable examples. Mention the changes in MCHC seen in this classification.
4. Describe the origin & spread of cardiac impulse with a suitable diagram.
5. Draw a neat labeled diagram of juxtaglomerular apparatus and explain its functions.
6. Describe enterohepatic circulation. Give its importance.
7. Describe the fate of hemoglobin following hemolysis.
8. Describe the cause, manifestation & treatment of decompression sickness.
9. List 2 factors influencing gastric HCl secretion and explain the mechanism by which they do so.
10. List 2 hormones acting on the kidney & mention one function of each. List 1 hormone secreted by the kidney & mention its function.
11. Describe the cause of a, c and v waves seen in jugular venous pulse recording.
12. Classify leucocytes. Describe the role of leucocyte in providing immunity.

SHORT ANSWERS

10 X 3 = 30 Marks

13. Enumerate the immediate and delayed blood transfusion reactions
14. Explain Reynolds number & its relation to turbulent flow
15. Mention the 3 basic renal processes that lead to formation of urine.
16. List the movements of small intestine.
17. List the steps of Hemostasis
18. Define timed vital capacity. Mention its significance.
19. Define negative feedback mechanism & give an example
20. Define facilitated diffusion with one example
21. Mention the factors affecting diffusion across respiratory membrane
22. Enumerate the uses of ECG.



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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

1. With a neat labeled diagram describe the origin, course and termination of dorsal column medial lemniscal system. List the sensations carried by it.
2. Describe the functions of thyroid hormones. Explain regulation of thyroid hormone. List clinical features of myxedema.

SHORT ESSAY

10 X 5 = 50 Marks

3. Define sensory receptor. Explain law of projection with an example.
4. Mention five differences between REM and NREM sleep.
5. List the hormones secreted by posterior pituitary. Describe the functions of each.
6. List and explain theories of hearing.
7. Mention normal serum calcium levels. List 3 hormones and 3 target tissues on which they act and what is their effect on serum calcium levels.
8. Name one disease of Basal Ganglia dysfunction. Explain the cause and features of that disease.
9. List the contraceptive methods in females & explain their basis of function.
10. Give the cause of Myasthenia Gravis. Explain the basis of treatment.
11. Give the causes & explain the basis of the features of Cushings syndrome.
12. Draw a neat labeled diagram of neuron. Explain how nerve impulse is conducted in myelinated nerves.

SHORT ANSWERS

10 X 3 = 30 Marks

13. Draw a diagram to show image formation in myopia. Give its cause and correction.
14. List the neuroglial cells and mention one function of each .
15. Explain the physiological basis for presence of polyurea in diabetes mellitus
16. Define macular sparing. Give reasons for macular sparing.
17. List the functions of aldosterone. Mention its site of action.
18. Is the statement true or false . Cerebellar lesions affect the opposite side. Justify your answer.
19. Describe the functions of sertoli cells.
20. Explain ionic basis for the different phases of nerve action potential.
21. Explain tympanic reflex in middle ear.
22. List the types of memory. Name one disease where memory is impaired.