

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

M.B.B.S Phase-I Degree Examination – SEPTEMBER 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 cycle and mention its normal duration. With a neat labeled diagram describe various volume and pressure changes in left ventricle during each cycle.(2+8)
2. Explain oxygen transport in the blood. Add a note on Oxygen dissociation curve. Mention the value of P50. (5+4+1)

SHORT ESSAY

10 X 5 = 50 Marks

3. Describe the fate of hemoglobin following hemolysis.
4. Elucidate the homometric & heterometric regulation of cardiac output.
5. Draw a neat labeled diagram of filtration membrane and explain the factors influencing filtration.
6. List 2 factors influencing gastric HCl secretion and explain the mechanism by which they do so.
7. Define Anaemia. Classify Anaemia in morphological basis giving suitable examples. Mention the changes in MCV seen in this classification.
8. Describe the cause, manifestation & treatment of decompression sickness.
9. Explain the steps involved in second phase of deglutition.
10. Draw a neat labeled diagram of a cystometrogram and explain the pressure volume changes during bladder filling
11. Explain the role of renin angiotensin system in the regulation of blood pressure
12. Give the physiological basis of development of erythroblastosis foetalis, its prevention & treatment.

SHORT ANSWERS

10 X 3 = 30 Marks

13. List the steps of Hemostasis
14. Explain the significance of Reynolds number in haemodynamics
15. Difference between cortical & juxtamedullary Nephron.
16. Give reason for pancreas not being autodigested by the proteolytic enzymes secreted by pancreas.
17. Explain 3 important functions of plasma proteins.
18. Define vital capacity. Mention the factors influencing it.
19. Classify the fluid compartment of body giving their normal values.
20. Give the physiological basis why sodium potassium pump called electrogenic pump
21. Name the respiratory centers.
22. Draw a neat labelled diagram of Lead II ECG, & mention the cause for each wave

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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. Classify receptors and explain the properties.
2. Give account of various theories for control of food intake.

SHORT ESSAY

10 X 5 = 50 Marks

3. List and explain the functions of middle ear.
4. What are the types of synapses? Mention their characteristic differences
5. Draw neat labeled diagram of optic pathway . Demonstrate visual field defects seen in lesion in the course of optic pathway.
6. Explain feedback regulation of growth hormone.
7. Enumerate the differences between UMN and LMN lesions.
8. Describe hormonal regulation of menstrual cycle.
9. Explain the physiological basis of hyperglycemia, polyphagia, glycosuria, polyuria and polydipsia in Diabetes Mellitus.
10. Classify nerve fibers based on their diameter and conduction velocity.
11. Classify aphasia and explain.
12. Describe the etiology and clinical features of Myxedema.

SHORT ANSWERS

10 X 3 = 30 Marks

13. Name the primary taste sensations.
14. List the any six features of cerebellar dysfunction.
15. Give the function of aldosterone & its site of action.
16. Draw a neat labeled diagram of olfactory receptor and explain perception of smell.
17. List the features of diabetes insipidus
18. What is Papez circuit? Give its physiological significance.
19. List ONE contraceptive method in male and female. Explain its mechanism of action.
20. Draw a neat labeled diagram of neuromuscular junction.
21. Define referred pain. Give an example.
22. Mention THREE differences between REM & NREM sleep.