

Rajiv Gandhi University of Health Sciences, Karnataka

M.B.B.S. Phase I Degree Examination - August 2007

Time: 3 Hrs.

[Max. Marks: 90]

PHYSIOLOGY - PAPER I (Old Scheme)

QP Code: 1003

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

LONG ESSAY

2 X 10 = 20 Marks

1. Name the sites of erythropoiesis in an adult. Explain how erythropoiesis is regulated
2. Explain the role of arterial baroreceptors in the regulation of blood pressure after blood loss

SHORT ESSAY

10 X 5 = 50 Marks

3. Describe the formation and circulation of lymph
4. Describe the steps in phagocytosis
5. Define Starling's law of the heart and explain its importance
6. Define 'auto regulation of blood flow' and explain how it is brought about
7. Explain two special properties of cardiac muscle
8. Explain the role of peripheral chemoreceptors in regulating respiration
9. Explain the changes in respiration during muscular exercise
10. Describe the regulation of gastric emptying time
11. Draw the micturition reflex arc and explain two disorders of micturition
12. Draw labeled diagrams to show the sarcomere at rest and during contraction

SHORT ANSWERS

10 X 2 = 20 Marks

13. Name four hormones acting on the renal tubules
14. Name the types of dialysis
15. Give the formula for effective filtration pressure in the kidney
16. List four functions of the liver
17. Name the different types of cells in the gastric mucosa
18. Give the O₂ content in arterial and mixed venous blood
19. Name two muscles each of a) normal inspiration b) forced inspiration
20. Name the forms in which CO₂ is transported in blood
21. Draw a graph to show the intrapleural pressure during a respiratory cycle
22. List four non-respiratory functions of the lungs
