

# Rajiv Gandhi University of Health Sciences

M.B.B.S. PHASE - I Degree Examination - June/July 2009

Time: 3 Hrs.

[Max. Marks: 100]

## PHYSIOLOGY - PAPER I (Revised Scheme)

### QP Code: 1053

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

#### LONG ESSAY

**2 X 9 = 18 Marks**

1. Name the leads used in recording of E.C.G and describe the E.C.G waves and intervals
2. Describe the Neural Regulation of respiration, mentioning the locations of Respiratory centres

#### SHORT ESSAY

**10 X 5 = 50 Marks**

3. How the Juxta glomerular complex is formed? What are the hormones secreted by it? Explain the actions of each hormone
4. Explain the importance of counter current mechanism in the kidney
5. Draw a diagram of special conducting system of heart. How is Idio ventricular rhythm is produced?
6. What is mechanics of breathing? What are the factors necessary in Automatic breathing?
7. Where is the intra pleural pressure? What are the variations in different phases of respiration?
8. Name the procoagulants and explain how these hasten the coagulation process
9. What is micro circulation and explain the pressures in it
10. What is Dyspnea, Dyspnic index? In what conditions is dyspnea observed?
11. Name the bacteria in intestine. In which segment of gastro intestinal tract it is located? How does it help man?
12. Describe the nerve supply of urinary bladder

#### SHORT ANSWERS

**16 X 2 = 32 Marks**

13. What is the importance of artificial kidney?
14. Explain Insulin clearance test
15. What is the important function of macula densa in distal tubule of Nephron?
16. What is Lung Compliance? And in what conditions it is variable
17. Increase of which capillary pressure in pulmonary circulation leads to pulmonary oedema and explain the reasons
18. Explain Blood Brain Barrier in Cerebral circulation
19. Why do heart rate and rate of respiration increase during Exercise?
20. Name the factors increasing the venous return to right atrium
21. Write briefly the right ventricular pressure changes during cardiac cycle
22. What is Mega colon and what are the causes and complications of this disease?
23. Name the properties of cardiac muscle and what is the importance of Absolute Refractory period
24. Write briefly on volume changes in the ventricles during cardiac cycle
25. What is the cause of 'T' wave in the E.C.G? In which leads is it inverted normally?
26. Draw a diagram of spirogram and label the volumes and capacities
27. Name the complications of mismatched blood transfusion
28. What is hypertension? What are the causes leading to secondary hypertension?

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