

# Rajiv Gandhi University of Health Sciences

M.B.B.S. PHASE - I Degree Examination - February 2007

Time : 3 Hrs.

[Max. Marks: 100]

## PHYSIOLOGY - Paper I (Revised Scheme II)

QP Code : 1077

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

### LONG ESSAY

2 X 10 = 20 Marks

1. Describe the mechanism of formation of urine.
2. Discuss the regulation of cardiac output.

### SHORT ESSAY

10 X 5 = 50 Marks

3. Explain rennin-angiotensin mechanism
4. Explain the dynamics of capillary fluid exchange. How is it affected in hypoproteinemia?
5. Explain the factors affecting the affinity of oxygen to hemoglobin
6. Classify 'Hypoxia'. Give example for each type. Mention distinguishing features of each type of hypoxia
7. Explain respiratory distress syndrome. Add a note on 'pulmonary surfactant'
8. Explain why vitamin B12 deficiency causes anemia. Give the blood picture in this condition.
9. Complications of mismatched blood transfusion
10. Deglutition reflex
11. Gastric phase of gastric secretion
12. Functions of large intestine

### SHORT ANSWERS

10 X 3 = 30 Marks

13. Name the arterial baroreceptors. How are they stimulated? Mention **two** effects of stimulation of baroreceptors
14. Explain the triple response
15. Explain Herring-Brewer inflation reflex
16. Explain the morphology and functions of monocytes
17. What is prothrombin time? Explain its usefulness as a haemostatic test
18. Give the value of normal blood volume in adults. Explain the principle of measurement of blood volume
19. What is the normal plasma osmolarity?
20. Explain the genesis of peristalsis in small intestine
21. Mention the source, stimulus for release and actions of secretin
22. Draw diagram to show nerve supply to urinary bladder and its sphincters

\* \* \* \* \*