



# Rajiv Gandhi University of Health Sciences, Karnataka

MBBS PHASE I Degree Examination – June / July 2011

**Time: Three Hours**

**Max. Marks: 100 Marks**

## PHYSIOLOGY – I (RS 2 & RS 3) **Q.P. CODE: 1077**

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

### **LONG ESSAYS (Answer any Two)**

**2 x 10 = 20 Marks**

1. Name the lead systems employed in recording Electrocardiogram. Draw and label a typical Electrocardiogram and explain the causation of various deflections and intervals
2. Classify the leucocytes and describe their morphological features with the help of diagrams. Elaborate the steps involved in the phagocytic function of neutrophils

### **SHORT ESSAYS**

**10 x 5 = 50 Marks**

- 3 Draw a diagram of Juxta Glomerular apparatus. Explain its functions
- 4 Mention the causation, morphological features of red cells and treatment of pernicious anemia
- 5 Describe the factors regulating gastric emptying
- 6 Describe the chemical regulation of respiration
- 7 Describe how cushing's reflex is activated and its effect on systemic blood pressure
- 8 Define Fick's principle. Give details of estimation of cardiac output based on it
- 9 Describe the mode of Glucose reabsorption in the proximal tubule of the Nephron and TmG
- 10 What are the types of jaundice, their salient features and method of differentiation
- 11 Give a brief account of respiratory distress syndrome (Hyaline Membrane Disease)
- 12 Describe the pharyngeal phase of deglutition

### **SHORT ANSWERS**

**10X3=30 Marks**

- 13 What are micelles and how are they formed
- 14 Define functional residual capacity, its normal range and significance
- 15 Explain the operation of Hering – Breuer reflex
- 16 Name two anticoagulants. Explain mechanism of action of any one of them
- 17 What are the types of dead space and their extent
- 18 What is facilitated diffusion and how does it differ from simple diffusion
- 19 Name the important proteolytic enzymes and their mode of activation
- 20 Describe how gastric acid secretion can be reduced to treat acid peptic ulcer



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- 21 Mention the effects of vagal stimulation on heart
- 22 What is secondary active transport? Give an example

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