

# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Sep 2012

**Time: Three Hours**

**Max. Marks: 100 Marks**

## HUMAN PHYSIOLOGY (RS-3 & RS-4)

### Q.P. CODE: 2702

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

#### LONG ESSAYS (Answer any Two)

**2 x 10 = 20 Marks**

1. Define cardiac output. Describe the factors that regulate cardiac output
2. With a well labeled graph discuss the ionic basis of action potential
3. Name the respiratory centres. Explain the neural regulation of respiration

#### SHORT ESSAYS (Answer any Twelve)

**12 x 5 = 60 Marks**

4. Enumerate the functions of saliva
5. Briefly describe the regulation of GFR by the kidney
6. Define hypoxia. Differentiate the types of hypoxia
7. Describe the features of sensory homunculus
8. Enumerate the functions of liver
9. Briefly outline the contraction cycle of a skeletal muscle
10. Explain the functions of middle ear
11. Draw and label the normal ECG waves. Enumerate its uses
12. With the help of strength – duration curve, explain rheobase and chronaxie
13. Explain the phases of gastric juice secretion
14. List the functions of plasma proteins
15. Define menopause. Enumerate its important features
16. What is Landsteiner's law? Explain its applications in the ABO and Rh system
17. Discuss the physiological action of cortisol

#### SHORT ANSWERS

**10 x 2 = 20 Marks**

18. Name 4 contraceptive methods in male
19. What are anti – coagulants. List any four anti – coagulants
20. List the primary taste sensations. Locate their area on the tongue
21. Define saltatory conduction in a nerve fibre
22. What is myasthenia gravis
23. What is apex beat? Mention its clinical significance.
24. Define a muscle tone
25. What is referred pain? Give two examples
26. Define shock. Name the types of shock
27. Define physiological dead space

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