



# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 24-Nov-2023

Time: Three Hours

Max. Marks: 100 Marks

## HUMAN PHYSIOLOGY (RS5)

**Q.P. CODE: 2732**

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

### LONG ESSAYS (Second Question Choice)

**2 x 10 = 20 Marks**

1. Describe the neural regulation of respiration with the help of diagram. Add a note on Herring Breuer's reflex.
2. Name the contractile proteins of skeletal muscle and explain the sliding filament theory of muscle contraction.

**OR**

Define arterial blood pressure and give normal value. Explain the mechanism of long-term regulation of blood pressure.

### SHORT ESSAYS (Question No 3 & 12 choice)

**10 x 5 = 50 Marks**

3. Draw a normal spirogram. Label and define different lung volumes and capacities.

**OR**

Briefly explain the stages of erythropoiesis.

4. Explain the hormonal regulation of normal blood calcium level.
5. Draw a labelled diagram of normal Electrocardiogram and explain the ionic basis of each wave.
6. Give an account of circulation and functions of CSF.
7. With the help of flow chart, explain defecation reflex.
8. Describe the mechanism of reabsorption of glucose in the renal tubule.
9. Explain accommodation reflex.
10. Define Action Potential. Draw and label different phases of Action Potential of a skeletal muscle fiber giving the ionic basis for each.
11. Define Glomerular Filtration Rate with its normal value. Explain any 2 factors that favour and oppose filtration.
12. Define REM and NREM sleep. Differentiate the features of REM and NREM sleep.

**OR**

Briefly explain the pharyngeal phase of deglutition.

### SHORT ANSWERS

**10 x 3 = 30 Marks**

13. Write the functions of corpus luteum.
14. Define chronaxie and state the significance it.
15. Differentiate cortical nephrons from juxtamedullary nephrons.
16. What is hemophilia? What is its cause?
17. What is GFR? Give its normal value.
18. Write a note entero-hepatic circulation.
19. Write the causes and symptoms of Cushing's disease.
20. List the plasma proteins with one function each.
21. What is Myopia? How is it corrected?
22. List the hormones of anterior pituitary.

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