

# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Allied Health Sciences Degree Examination – 24-Nov-2023

**Time: Three Hours**

**Max. Marks: 80 Marks**

## **PHYSIOLOGY (RS-3)**

(RS3 – Medical Laboratory Technology, Medical Imaging Technology and Radiotherapy Technology)

RS2 – Operation Theatre Technology, Cardiac Care Technology, Perfusion Technology, Renal Dialysis Technology, Respiratory Care Technology, Anaesthesia Technology and Neurosciences Technology)

**Q.P. CODE: 3152**

**(QP contains two pages)**

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary

### **SHORT ESSAYS (ATTEMPT ANY EIGHT)**

**8 x 5 = 40 Marks**

1. Discuss the Triple response.
2. Describe the mechanism of action of hormones.
3. Name two gastrointestinal hormones produced by small intestine and describe their actions.
4. What are the types of normal Hb? How are they structurally and functionally different?
5. Excitation-contraction coupling
6. Define and classify colour blindness.
7. Describe the chemical regulation of respiration.
8. Give a labeled diagram of Juxta Glomerular Apparatus and explain its functions.
9. Explain what is meant by lower motor neuron? Give the features of a lower motor neuron lesion.
10. Name the compartments of body fluids and show the percentage distribution. How much is the total body water in a young adult male?

### **SHORT ANSWERS (ATTEMPT ANY TEN)**

**10 x 3 = 30 Marks**

11. Write a note on CSF.
12. What is EEG? Name the four types of waves recorded in an EEG.
13. Enumerate the functions of Stomach.
14. Explain the terms chronotropic and inotropic.
15. Draw a diagram of the negative feedback control of growth hormone secretion.
16. What is lymph? What are its functions?
17. Draw a diagram of a sarcomere and label its parts.
18. Name the different types of nephron. List two differences between them.
19. List, with the help of diagrams, three errors of refraction.
20. Draw a labeled diagram of reflex arc.
21. Explain in one sentence: (a) Hypoxia (b) Hering Breuer Reflex (c) Asphyxia.
22. Explain counter current system.

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## **TO THE POINT ANSWERS (ATTEMPT ANY FIVE)**

**5 x 2 = 10 Marks**

23. List three actions of thyroid hormone.
24. List two functions of hypothalamic-pituitary axis.
25. Ovulation and its hormonal basis
26. Define obligatory water reabsorption.
27. List two methods of contraception in male.
28. Name the respiratory muscles.
29. Define Starling's law.

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