

# Rajiv Gandhi University of Health Sciences, Karnataka

## I Year B.Sc. Allied Health Sciences Degree Examination – 21-May-2025

Time: Three Hours

Max. Marks: 80

### PHYSIOLOGY (RS-3)

(RS-3 – Medical Laboratory Technology, Medical Imaging Technology and Radiotherapy Technology  
RS-2 – Operation Theatre Technology, Cardiac Care Technology, Perfusion Technology, Renal Dialysis Technology, Respiratory Care Technology, Anaesthesia Technology and Neurosciences Technology)

**Q.P. CODE: 3152**

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

#### SHORT ESSAYS (Answer any Eight)

**8 x 5 = 40 Marks**

1. Define erythropoiesis and explain the stages of erythropoiesis
2. Tabulate the difference between saltatory conduction and continuous conduction
3. Define Glomerular Filtration Rate (GFR). Give its normal value. Explain any two factor regulating GFR
4. Draw and describe the visual pathway with the help of a labelled diagram
5. List and explain the actions of glucocorticoids
6. Explain the steps in spermatogenesis. Add a note on the factors that regulate spermatogenesis
7. Explain the defaecation reflex with the help of a diagram
8. With the help of a diagram explain the oxygen-haemoglobin dissociation curve. List the factors that cause the right and left shifts of the curve
9. Describe the conducting system of the heart with a labelled diagram
10. Trace the pathway for temperature

#### SHORT ANSWERS (Answer any Ten)

**10 x 3 = 30 Marks**

11. What is triple response?
12. List any three functions of the middle ear
13. Define Erythrocyte Sedimentation Rate (ESR). Write its normal value in males and females
14. Write any three functions of bile juice
15. List any three clinical features seen in type II diabetes mellitus
16. Briefly explain the milk ejection reflex with help of flow chart
17. Draw a neat diagram of the nephron and label its parts
18. List any three small intestinal movements. Explain any one
19. List any three functions of the cerebellum
20. Write any three properties of a cardiac muscle
21. What is the normal bleeding time? Name one bleeding disorder
22. Define Shock. Write any two features seen in shock

#### TO THE POINT ANSWERS (Answer any Five)

**5 x 2 = 10 Marks**

23. What is the normal hemoglobin value?
24. Write the name of any two anticoagulants and their uses
25. Name the pancreatic proteolytic enzymes
26. Write any two properties of a synapse
27. Define Bohr's effect
28. Write any two actions of aldosterone
29. Write any two functions of surfactant

\*\*\*\*\*