

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Allied Health Sciences Degree Examination - 06-May-2026

Time: Three Hours

Max. Marks: 100

PHYSIOLOGY

(RS-3 – B.Sc Cardiac Care Technology, Perfusion Technology, Renal Dialysis Technology, Respiratory Care Technology, Neuro Sciences Technology, Anesthesia Technology, Operation Theatre Technology, Emergency and Trauma Care Technology)

(RS-4 – B.Sc Medical Laboratory Technology, Medical Imaging Technology and Radiotherapy Technology)
Anesthesia and Operation Theatre Technology

Q.P. CODE: 3262

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. With the labelled diagram of the neuromuscular junction of the skeletal muscle, list the steps of transmission of electrical impulse across it
2. Define blood pressure with its normal value. With a diagram, explain the long-term regulation of the arterial blood pressure

OR

Define menarche and menopause. With the help of the diagram, describe the phases of the menstrual cycle with its hormonal basis

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. Classify white blood cells. Draw the structure of neutrophil and write its function
4. What is a Sarcomere? Draw diagrams to compare the Sarcomere at rest and during muscle contraction
5. Define cardiac output with its normal value. Explain any two factors which regulate it

OR

What is deglutition? Describe the second stage of deglutition

6. Classify hypoxia. Give a cause for each type of hypoxia
7. What is cross matching of blood? Mention three dangers of mismatched blood transfusion
8. With the help of a urinary bladder innervation, describe the micturition reflex
9. Describe the milk ejection reflex (Neuroendocrine reflex) mediated by oxytocin
10. Define synapse. Describe any three properties of the same

OR

Draw the diagrams to show how the image formation is altered in myopia. How is it corrected?

11. What is spermatogenesis? Explain the stages of spermatogenesis. Write the role of any one factor which regulates it
12. Draw the dorsal column pathway. Name two sensations carried by the tract

SHORT ANSWER (Question No 15 & 20 choice)

10 x 3 = 30 Marks

13. Define active and passive transport with an example for each
14. What are anticoagulants? Give an example of an in-vivo and invitro anticoagulant
15. List three differences between I and II heart sound

OR

Draw and label the structure of a neuron. What is meant by salutatory conduction and its significance?

16. Define vital capacity. Give its normal value
17. Write the composition and two functions of saliva
18. What is artificial kidney? What is the indication for it?
19. Write three differences between diabetes insipidus and diabetes mellitus
20. What is deafness? What are the types of deafness?

OR

Tabulate the differences between isotonic and isometric muscle contraction. Give an example for each

21. Name three contraceptive methods in female
22. Draw and label the components of a reflex arc
