Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Allied Health Sciences Degree Examination – 02-Nov-2026

Time: Three Hours **Max. Marks: 80 Marks**

BIOCHEMISTRY

(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: 3153

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. Explain beer Lambert law. Explain working of colorimeter.
2. Different types of pipette and their uses.
3. Classification of lipids.
4. Write Henderson-Hasselbach equation and its application.
5. What is percent solution? How to prepare of 0.9% NaCl?
6. Laboratory balances – types, uses and care.
7. What is the pH of blood? Name the plasma buffers. Explain role of Bicarbonate buffer.
8. Classify carbohydrates. Give examples.
9. Explain principle, component and working of centrifuge.
10. Draw a neat diagram and explain the working of distillation apparatus.

SHORT ANSWERS (Answer Any Ten) **10 x 3 = 30 Marks**

11. Define indicators. Name any two indicators and give their pH range.
12. Components of pH meter.
13. What are hygroscopic substances? Give two examples.
14. Nutritional classification of amino acids.
15. What is standard solution? How to prepare 1% glucose standard solution.
16. Define nucleotides. Add a note on its composition.
17. Treatment and disposal of wastes.
18. First aid in laboratory.
19. Cleaning of glasswares.
20. Write briefly on chemical hazards.
21. Types of flasks.
22. Write the principle and working of Hot Air Oven.

TO THE POINT ANSWERS (Answer Any Five) **5 x 2 = 10 Marks**

23. Automated pipette.
24. SI units.
25. Polyunsaturated fatty acids.
26. Define a) Percent solution b) Normality
27. Bunsen Burner.
28. Define a) Valency b) Molecular weight
29. Define Radioactivity. Name the uses of i) ^{131}I ii) ^{60}C

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