

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Allied Health Sciences Degree Examination - 29-Oct-2025

Time: Three Hours

Max. Marks: 100 Marks

BIOCHEMISTRY

(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: 3263

(QP contains two pages)

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. Give the recommended daily allowance, dietary sources and functions of calcium. Add a note on regulation of serum calcium level.
2. Discuss in detail beta oxidation of fatty acids.

OR

Classify carbohydrates with example. Add a note on structure of starch.

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. What are phospholipids made up? List their functions.

4. Functions of proteins with example.

5. Structure of tRNA.

OR

Regulation of plasma glucose level during fasting state.

6. Basal metabolic rate.

7. Outline the steps of urea cycle.

8. Sources, RDA and functions of iron.

9. functions and deficiency manifestations of vitamin A.

10. Functions and deficiency manifestation of Niacin.

OR

Blood buffers.

11. Creatinine clearance test.

12. Define normality. Explain how to prepare 1N HCl solution.

SHORT ANSWER (Question No 15 & 20 choice)

10 x 3 = 30 Marks

13. Define balanced diet. Name the energy providing nutrients of balanced diet.

14. Write any three applications of radioactive isotopes.

15. Saturated and supersaturated solutions.

OR

Define Essential fatty acids. Give examples.

16. Digestion of disaccharides.

17. Nucleotides present in DNA with their composition.

18. Name the different ketone bodies.

19. Oxidative Deamination reaction.

20. How many ATPs are produced when a molecule of glucose is completely oxidized to carbon dioxide?

OR

Define calorific value. Mention calorific value of carbohydrates and fats.

21. Define proenzymes. Give two examples.

22. Role of HCl in digestion.

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