# Rajiv Gandhi University of Health Sciences, Karnataka

**I Year B.Sc. Optometry Degree Examination - 29-Oct-2026**

**Time: Three Hours** **Max. Marks: 100**

## BASIC BIOCHEMISTRY AND NUTRITION (RS-4)

## Q.P. CODE: 3340

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

**LONG ESSAYS (Second Question Choice)** **2 x 10 = 20 Marks**

1. Explain the classification and functions of carbohydrates. Add a note on glycosaminoglycans (mucopolysaccharides)

2. Describe enzyme classification, mechanism of enzyme action and factors affecting enzyme activity. Add the clinical significance of enzymes

   **OR**

   Write in details about β oxidation of fatty acids. Add a note on energetics of palmitic acid

**SHORT ESSAYS (Question No 5 & 10 choice)** **10 x 5 = 50 Marks**

3. Classification and functions of fatty acids
4. Essential fatty acids and their deficiency
5. Phospholipids and their importance

   **OR**

   Peptide bond and biologically important peptides
6. Plasma proteins and their functions
7. Citric acid cycle
8. Differences between DNA and RNA
9. Digestion and absorption of carbohydrates
10. Urea cycle
11. Fat-soluble vitamins functions and deficiency
12. Transamination

**SHORT ANSWER (Question No 15 & 20 choice)** **10 x 3 = 30 Marks**

13. Define monosaccharide with example
14. Define cholesterol
15. Water soluble vitamins

    **OR**

    Disaccharides-examples
16. Proenzyme
17. Write any four nucleotides
18. Lactose intolerance
19. Define ATP
20. What are ketone bodies?

    **OR**

    Define RDA
21. Define buffer
22. Free radicals

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