Rajiv Gandhi University of Health Sciences, Karnataka I Year B.Sc. Optometry Degree Examination - 12-Dec-2022

Time: Three Hours Max. Marks: 100 Marks

BASIC BIOCHEMISTRY AND NUTRITION (RS-4) Q.P. CODE: 3340

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

LONG ESSAYS (Second Question Choice)

 $2 \times 10 = 20 \text{ Marks}$

- 1. What are Phospholipids? Classify them with suitable examples. Explain the functions of phospholipids.
- 2. What is the normal blood urea level? How ammonia is converted to urea?

Or

Explain the role of buffers in regulation of acid base balance. Add a note on Metabolic Acidosis.

SHORT ESSAYS (Question No 5 & 10 choice)

 $10 \times 5 = 50 \text{ Marks}$

- 3. Explain the sources and functions of Vitamin D.
- 4. Define and classify enzymes with examples.
- 5. Name the plasma proteins. Enumerate the functions of plasma proteins.

Or

Discuss deficiency manifestation of Iron.

- 6. Explain Protein Energy Malnutrition.
- 7. Write the composition and functions of Mucopolysaccharides.
- 8. Post translational modification.
- 9. Describe the steps and energetics of Glycolysis.
- 10. Explain the Co-enzyme forms, Biochemical functions of Riboflavin.

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What are antioxidants? Write about enzyme antioxidant system.

- 11. Structure of t-RNA.
- 12. Pellagra.

SHORT ANSWER (Question No 15 & 20 choice)

 $10 \times 3 = 30 \text{ Marks}$

- 13. Functions of Vitamin K
- 14. Essential Fatty acids.
- 15. Name the different Muscle Proteins and their function.

Or

Name the specialized products formed from Glycine.

- 16. Ocular manifestation of Vitamin A
- 17. Nitrogen balance.
- 18. What are Ketone bodies? Name the test done for the detection?
- 19. List any two significance of HMP shunt pathway.
- 20. Write the biological reference interval of a) Serum Calcium b) Serum Sodium c) Serum Creatinine

OR

What are essential amino acids? Give examples.

- 21. Disorders associated with collagen.
- 22. Scurvy.
