Rajiv Gandhi University of Health Sciences, Karnataka

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

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. Define lipids. Classify them with example. Add a note on their functions.
2. Write reactions of citric acid cycle. Add a note on its energetics.

   OR

   Give the recommended daily allowance, dietary sources, functions and deficiency manifestation of vitamin C.

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

3. Significance of Hexose Mono Phosphate shunt pathway.
4. What are heteropolysaccharides? Enumerate their functions with example.
5. Discuss the digestion of lipids.

   OR

   Outline the steps of urea cycle.
6. What are phospholipids? Write their functions.
7. Transamination reaction and its importance.
8. Explain the functions of phosphorus.
9. How to calculate daily calorie requirement of an adult male.
10. What are dietary fibres? Mention their importance.

    OR

    Explain the sources, recommended daily allowance and functions of iron.
11. Creatinine clearance test.
12. What are radioactive isotopes? Mention their applications.

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

13. Preparation of 500 ml of IM NaOH.
14. Stock and working standard solutions.
15. Urinary acidification test

    OR

    Define coenzymes. Give any four examples.
16. Write normal serum levels of: a) Urea b) Uric acid c) Creatinine.
17. What is the composition nucleotide? List the nucleotides present in RNA.

18. What are disaccharides? Give two examples with their composition.

19. Name any three peptides of biological importance with their function.

20. Define proenzymes. Give two examples.
    OR
    Lactose intolerance.

21. Deficiency manifestations of vitamin D.

22. Define buffers. Name the buffers present in blood.

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