Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (MLT) Degree Examination - 28-Oct-2025

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

BIOCHEMISTRY – PAPER II (RS3)

Q.P. CODE: 3156

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

LONG ESSAY (Any Two) **2 x 10 = 20 Marks**

1. Define glycogenesis and glycogenolysis. Write the reactions of glycogenesis and glycogenolysis in liver
2. Give an account of the chemistry, RDA, sources of vitamin C? Enumerate its biochemical functions and deficiency manifestations
3. Discuss principle, components, care and maintenance of spectrophotometer

SHORT ESSAY (Any Six) **6 x 5 = 30 Marks**

4. Mention different types of enzyme inhibition. Explain competitive inhibition with example
5. What are heteropolysaccharides? Add a note on four functions of heteropolysaccharides
6. Classify proteins with example based on function
7. Outline the reactions of degradation of purine nucleotides
8. How to collect 24 hours urine sample? Name urine preservatives
9. Structure and function of DNA
10. Procedure and interpretation of creatinine clearance test
11. Define accuracy and precision. Explain how to prepare a calibration curve using stock standard solutions

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

12. What are immobilized enzymes? Give TWO examples
13. Molecular defect and features of Phenylketonuria
14. Analysis of ascetic fluid
15. How to prepare 500 ml of 1N NaOH solution?
16. What are epimers? Give example
17. Define isoelectric pH of proteins. Give TWO examples
18. What are coenzymes? Give TWO examples
19. What is end point method? Name any TOW end point methods used in quantitative estimation
20. Write the significance of HbA1c
21. Principle of test used for the detection of urea in urine
22. Procedure of Benedict's test
23. Principle and applications of nephelometry

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