Rajiv Gandhi University of Health Sciences, Karnataka

Third Year B.Sc. Medical Laboratory Technology Degree Examination – 27-Oct-2025

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

BIOCHEMISTRY – III (RS-4)

Q.P. CODE: 3282

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. Explain the principle, procedure of separation of plasma proteins by Agarose gel electrophoresis. Draw the normal pattern obtained by this technique
2. Explain the steps of HMP shunt pathway. What is the significance of this pathway?

   OR

   What is Replication? Give a brief account of the process of replication

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

3. Posttranscriptional modifications
4. Levy Jennings plot and its importance
5. Enzyme markers in liver disease

   OR

   Fate of bilirubin in the body
6. Principle and applications of Chemiluminescence
7. Renal calculi – composition and analysis
8. Lipoproteins and their functions
9. Preparation of calibration curve and its utility in laboratory
10. Structure of tRNA

    OR

    Salient features of tumour markers
11. Automation in laboratory
12. Tubular function tests in renal assessment of kidney

SHORT ANSWER **10 x 3 = 30 Marks**

13. Give any three examples for preanalytical variables
14. Enzyme defect and features of Maple syrup urine disease
15. Prostate specific antigen
16. Test for Microalbumin and its importance
17. Name the enzyme defect in Galactosemia and Hereditary fructose intolerance
18. Mention any three functions of plasma proteins
19. Give two examples for Westgard rules for qc rejection
20. Vandenberg's test – principle and interpretation
21. Atherosclerosis
22. Name the branched chain aminoacids

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