Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. (M.L.T) Degree Examination – 27-Oct-2026

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. Define electrophoresis. Explain the factors affecting electrophoresis. Describe briefly the procedure of Agarose Gel Electrophoresis.
2. Write a note on arterial blood gas analysis and its clinical significance.
   OR
   Explain various mechanisms in the human system that helps in regulating pH.

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

3. What is automation? Write the advantages of automation.
4. Write in detail about Bilirubin formation. Add a note on Jaundice.
5. Write briefly on the internal and external quality control programme in Laboratory.
   OR
   Describe the catabolism of purine nucleotides.
6. Functions of thyroid hormones.
7. ELISA.
8. Westgard rules in quality control.
9. Diagnostic importance of enzymes.
10. Classification and characteristic of tumor markers.
    OR
    Explain briefly how to manually analyze renal stones.
11. Glycogen storage disorders.
12. Lipoproteins and their significance.

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

13. Rabies vaccine.
14. What is genetic code mention two characteristic of genetic code.
15. Alpha – 1 antitrypsin.
16. Point of care testing.
17. What is the biological reference interval?
18. Lipid profile.
19. Maple Syrup Urine Disease.
20. Cell culture.
21. Diagnostic significance of Alkaline phosphatase.
22. Significance of HMP shunt pathway.

*****