

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**Second Year B.Sc. Medical Laboratory Technology Degree Examination – 28-Oct-2025**

**Time: Three Hours**

**Max. Marks: 100 Marks**

**BIOCHEMISTRY – II (RS-4)**  
**Q.P. CODE: 3279**

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. Write the principle, instrumentation, operation and applications of thin layer chromatography
2. Explain the principle of reflectance photometry. Mention about glucometer  
**OR**  
Describe about types and management of diabetes mellitus

**SHORT ESSAYS (Question No 5 & 10 choice)**

**10 x 5 = 50 Marks**

3. Classify enzymes with examples
4. Procedure of venous blood sample collection
5. Precipitation reaction s of proteins  
**OR**  
Explain principle and working of water distillation apparatus with diagram
6. Properties of amino acids
7. Denaturation of proteins
8. Use, cleaning and maintenance of different glass wares used in laboratory
9. Write about laboratory hazards
10. Glycated HbA<sub>1</sub>C formation, biological reference intervals and clinical significance  
**OR**  
Saturated and supersaturated solution
11. Effect of substrate concentration on enzyme activity
12. Principle, components and working of centrifuge

**SHORT ANSWER**

**10 x 3 = 30 Marks**

13. Invert sugar
14. Benedict's test
15. Limitation of Beer – Lambert's law
16. Incubators
17. Definition and classification of international system of units
18. Dessicator and its uses
19. Significance of blood urea and serum creatinine
20. Immobilized enzymes
21. Heteropolysaccharides
22. Significance of borosilicate glass

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