

**First Year B.Sc MLT Degree Regular/Supplementary Examinations**  
**December 2023**  
**Biochemistry**  
**(2016 Scheme)**

**Time: 3 Hours**

**Total Marks: 100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

**Essay**

**(2x10=20)**

1. What is the principle of colorimetry. Draw parts of a colorimeter and explain role of each part. Add a note on difference between colorimeter and spectrophotometer.

**(3+4+3)**

2. Describe in detail different levels of organization of protein structure.

**Short notes**

**(10x5=50)**

3. SI units.
4. Preparation and use of different anticoagulants.
5. How will you prepare 1N HCl.
6. Flame photometry.
7. Cleaning of laboratory glass wares.
8. Water as universal solvent.
9. Phospholipids.
10. Difference between DNA and RNA.
11. Universal safety precautions.
12. What are various methods for detection of radioactivity.

**Answer briefly**

**(10x3=30)**

13. pH meter.
14. Endoplasmic reticulum.
15. What are primary standard chemicals. Give examples.
16. How will you make 5M NaCl solution.
17. Single pan balance.
18. Deionized water.
19. Iodine number and its significance.
20. Principle, use and maintenance of Vortex mixer.
21. Absorption of carbohydrates.
22. Osmosis.

\*\*\*\*\*