

QP Code: 101383

Reg. No.....

**First Year M.Sc. MLT Degree Supplementary Examinations January 2025
(Biochemistry)**

Paper I - General Biochemistry & Chemistry of Biomolecules

Time: 3 hrs.

Max. 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 diagrams wherever necessary*

Essays:

(10x10=100)

1. Enumerate different levels of protein structure. Describe primary structure in detail. (4+6)
2. What specific properties of water allow it to function as a universal solvent.
3. Describe briefly techniques of homogenization, cell disruption, ultracentrifugation and their applications.
4. Discuss about ion selective electrodes used in clinical chemistry.
5. Draw the structure of purines and pyrimidines and mark the atoms in the ring structure contributed by various molecules. Add a note on functions of nucleotides. (3+2+5)
6. Discuss the storage and disposal of radioactive materials.
7. What are some potential interferences that may occur during specimen collection. Add a note on preservatives used in laboratory. (7+3)
8. Enumerate different transport mechanisms across biomembranes with suitable examples.
9. Explain the general principle of electrophoresis. Mention the various types of electrophoresis and its applications. (2+8)
10. Classify the lipids with examples. Write a short note on essential fatty acids. (7+3)
