

**First Year B.Sc MLT Degree Supplementary Examinations**  
**February 2020**  
**Biochemistry**  
**(Common for 2010 and 2015 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 are different types of laboratory hazards. Discuss the safety measures against each.
2. Classify amino acids based on their structure, nutritional requirement, metabolic fate and side chain

**Short notes****(10x5=50)**

3. SI System of units
4. Stereoisomers of glucose
5. Types of pipettes
6. Transport mechanisms across plasma membrane
7. Donnan Membrane Equilibrium and its application in clinical chemistry
8. Digestion and absorption of dietary lipids
9. Anti-coagulants
10. Explain different types of dilutions used in clinical chemistry laboratory
11. Reagent grade water
12. Blood collection with evacuated blood collection tubes and mention the order of draw

**Answer briefly****(10x3=30)**

13. Beer Lambert's law
14. Diagrammatically represent the sources of atoms in purine ring
15. Primary structure of proteins
16. Preparation of 1N sodium hydroxide solution using anhydrous sodium hydroxide pellets
17. Desiccator
18. Structure and function of RNA
19. Urine preservatives
20. Zwitter ion
21. Function of \*Mitochondria, \*Endoplasmic reticulum, \*Golgi apparatus.
22. Phospholipids

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