

**Third Year B.Sc MLT Degree Regular/Supplementary Examinations  
May 2023  
Biochemistry – III**

**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 Diagrams wherever necessary.*

**Essay**

**(2x10=20)**

1. Name different types of enzyme inhibition. Describe in detail any three mentioning the features, plots and two clinically relevant examples of each (2+6+2)
2. Discuss the steps of heme catabolism

**Short notes**

**(10x5=50)**

3. Discuss various factors affecting electrophoresis
4. Describe principle and applications of immunodiffusion
5. Thalassemia
6. Ion exchange chromatography
7. Allosteric regulation
8. Van den Bergh reaction
9. Regulation of heme synthesis
10. Lactate dehydrogenase
11. Principle and method of estimation of Alkaline phosphatase
12. Meth-hemoglobin

**Answer briefly**

**(10x3=30)**

13. Bohr effect
14. Analysis of biliary calculi
15. Oxidoreductases
16. Discuss blood and urinary findings in obstructive jaundice
17. Enzyme profile in muscle disease
18. Effect of substrate concentration on enzyme activity
19. Draw electrophoretic pattern of lipoproteins
20. Porphyria cutanea tarda
21. Creatinine clearance
22. Transaminases