

First Year B.Sc MLT Degree Supplementary Examinations June 2025**Basic Medical Laboratory Sciences & Hematology - I****(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. Classify microscopes. Describe the principles of working of a compound microscope and explain the functions of the various components of this microscope (3+7)
2. What are the different methods of haemoglobin estimation. Mention their underlying principles, advantages and disadvantages (4+6)

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

3. Red cell indices
4. Osmotic fragility test
5. Manual platelet count
6. Methods for ESR estimation
7. Erythroid cells in the bone marrow
8. Waste management in the laboratory
9. EDTA (Ethylene diamine tetracetic acid)
10. Packed cell volume
11. Myeloid cell maturation
12. Automated blood cell counters

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

13. Differential count
14. Reticulocyte count
15. Glass blowing technique
16. Use of Lancet in the laboratory
17. Megakaryocyte
18. Thick blood smear
19. Bulk dilution for cell counting
20. Fuchs Rosenthal counting chamber
21. Sickling test
22. Turk's fluid
