

**First Year B.Sc MLT Degree Supplementary Examinations**  
**December 2023**

**Basic Medical Laboratory Sciences & Hematology**

**(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. Describe in detail the different anticoagulants and their uses in hematology (6+4)
2. What are Romanowsky stains. Describe their uses, preparation and staining properties with special emphasis to Leishman stain (3+2+5)

**Short notes**

**(10x5=50)**

3. Venepuncture
4. Advantages and disadvantages of disposable lab ware
5. Fluorescent microscope
6. RBC Count
7. Bulk dilution method for total WBC count
8. Haematocrit estimation and uses
9. Factors affecting ESR
10. Identification of abnormal hemoglobins
11. Reticulocyte count
12. Morphology of cells in myelopoiesis

**Answer briefly**

**(10x3=30)**

13. Vacutainer tubes
14. Abbe condenser
15. Lymphocytosis
16. Preparation of bone marrow smears
17. Fuchs Rosenthal counting chamber
18. Sickling phenomenon in RBC's
19. Normal parameters of red cells
20. Cyanmethemoglobin method for estimation of Haemoglobin
21. Universal safety precautions in the laboratory
22. Thrombocytopenia

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