

**First Year B.Sc MLT Degree Regular/Supplementary Examinations
March 2022**

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. What is Laboratory safety. Discuss the various laboratory hazards and safety measures to prevent them. (2+8)
2. What is a Romanowsky stain. Discuss the preparation, staining property and artifacts of Leishman's stain (2+8)

Short notes

(10x5=50)

3. Types of eye pieces
4. Describe magnification and resolution in microscopy
5. Sahli's haemoglobinometry
6. Red cell indices
7. Preparation of thick smear
8. Dark ground microscopy
9. Composition and preparation of glass
10. Erythropoiesis
11. Differential leukocyte count
12. Automated blood cell counters

Answer briefly

(10x3=30)

13. WBC pipette
14. Corrected WBC count
15. Osmotic fragility test
16. Parts of electron microscope
17. Abnormal hemoglobins
18. Types of condensers
19. CFU - colony forming unit
20. Enumerate anticoagulants with mode of action
21. Morphology of normal eosinophil
22. Preparation of new methylene blue solution.
