

**First Year B.Sc MLT Degree Examinations September 2017**

**Basic Medical Laboratory Sciences & Hematology**

**(2016 Scheme)**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all questions.
- Draw diagrams wherever necessary.

**Essay**

**(2x10=20)**

1. What are the different cells seen in normal peripheral blood. Briefly describe granulopoiesis. (2+8)
2. Mention different types of microscopes. Describe the principle, working and applications of fluorescent microscope. (2+3)

**Short notes**

**(10x5=50)**

3. Principle and method of Leishman staining
4. Supra vital staining- principle and uses
5. Red cell indices
6. ESR
7. Thick blood smear
8. Anti-coagulants
9. Myelopoiesis
10. Hemoglobin estimation
11. Platelet count
12. Universal safety precautions

**Answer briefly**

**(10x3=30)**

13. Principles of automated blood cell counters
14. Preparation of bone marrow smears
15. Glass ware cleaning
16. Reticulocyte count.
17. Sickling test
18. Normoblast
19. Diluting fluids
20. Vacutainers
21. Abnormal hemoglobins
22. Quality control methods in cell counts.

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