

**First B.Sc (MLT) Degree Supplementary Examinations, May 2012**

**BASIC MEDICAL LABORATORY SCIENCE & HAEMATOLOGY**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Draw diagrams wherever necessary.

**Essay**

**(2x10=20)**

1. Describe in detail the different anticoagulants and their uses in hematology.
2. What are the different methods of hemoglobin estimation. Mention their underlying principles, advantages and disadvantages .

**Short notes**

**(10x5=50)**

3. Preparation and use of a thick blood smear
4. Osmotic fragility test
5. Manual platelet count
6. Erythroid cells in the bone marrow
7. Laboratory safety manual
8. Waste management in the laboratory
9. Phase contrast microscopy
10. Myeloid cell maturation
11. Red cell indices
12. Fluorescent microscope

**Answer briefly**

**(10x3=30)**

13. Giemsa staining of bone marrow smears
14. Reticulocyte count
15. Abbe condenser
16. Vacutainer tubes
17. Cleaning of RBC and WBC pipettes
18. PCV
19. Bulk dilution for cell counting
20. Fuchs Rosenthal counting chamber
21. Spherical aberration
22. Haem's fluid