

**First Year B.Sc MLT Degree Supplementary Examinations, May 2016**

**BASIC MEDICAL LABORATORY SCIENCE & HAEMATOLOGY**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Draw Diagrams wherever necessary.

**Essay**

**(2x10=20)**

1. What is meant by erythrocyte sedimentation rate (ESR) . Describe the methods for estimation of ESR. Mention the normal values and the clinical significance of ESR estimation.
2. List the different types of microscopes. Describe the main parts of a bright field (Light) microscope. Briefly discuss the routine care and maintenance of a microscope.

**Short notes**

**(10x5=50)**

3. Supra vital staining
4. Prevention and management of 'biological hazards' in a laboratory
5. Cleaning of a Wintrobe's tube
6. Venous blood collection
7. Determination of red cell indices
8. Hematocrit estimation
9. Osmotic fragility test
10. Hemoglobin estimation by cyanmethemoglobin method
11. Romanowsky stains
12. Methods of platelet counting

**Answer briefly**

**(10x3=30)**

13. Eosinophilia- definition and causes
14. Turk's fluid
15. Stages of myelopoiesis in the marrow
16. Citrate anticoagulants
17. Correction in total leucocyte count for nucleated red cells (NRBCs)
18. Describe a megakaryocyte with the help of a diagram
19. Separation of serum from blood
20. Methods of dilution of blood for cell counting
21. Glass blowing technique and its use in laboratory
22. Essential reagents for an automated cell counter