

**First Year B.Sc MLT Degree Supplementary Examinations March 2018**

**BASIC MEDICAL LABORATORY SCIENCE & HAEMATOLOGY**

**(Common for 2010 and 2015 Scheme)**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Draw Diagrams wherever necessary.

**Essay**

**(2x10=20)**

1. Describe the principles of image formation in microscopes. Define numerical aperture, resolution and magnification. What steps will you take in daily care of a microscope.
2. Describe the procedure of total WBC count (with corrected Nucleated RBC) by conventional and bulk dilution methods. How is the diluting solution prepared. What are the common errors in total WBC count and mention quality control measures to avoid them.

**Short notes**

**(10x5=50)**

3. Handling cuts, wounds and burns in a laboratory
4. Care of common balance and weights
5. Preparation of Buffer solutions for staining
6. Tallquist method for hemoglobin estimation
7. Erythropoiesis
8. Sickling test
9. Factors affecting erythrocyte sedimentation rate (ESR) estimation
10. Steps of making a thin peripheral smear
11. Absolute eosinophil count
12. Parameters evaluated by a 3 part haemato-analyzer

**Answer briefly**

**(10x3=30)**

13. Types and uses of a centrifuge
14. Uses of polycarbonate and PVC wares in the lab
15. Fire safety measures in the lab
16. Safe disposal of specimens
17. Iodine containing antiseptics
18. Acid elution test
19. Describe a monocyte with a diagram
20. Staining of bone marrow smears
21. Fate of red blood cells (RBC) in the normal human being
22. Cells in megakaryopoiesis