

**First Year B.Sc MLT Degree Regular/Supplementary Examinations  
March 2021**

**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. Classify microscopes. Discuss the different parts of a compound bright field binocular microscope and explain the function of each part. (2+8)
2. What is supra vital staining. Give two examples. Describe the steps in the preparation of reticulocyte stain and discuss the methods of counting reticulocytes. (1+1+4+4)

**Short notes**

**(10x5=50)**

3. Glass blowing techniques
4. Chemical hazards in the lab
5. Capillary blood collection
6. Preparation of thin peripheral smear
7. Methods of ESR estimation.
8. Rulings of haemocytometer
9. EDTA
10. Methods of PCV
11. Bulk dilution technique
12. Bone marrow preparation

**Answer briefly**

**(10x3=30)**

13. MCV
14. Stages of hematopoiesis
15. platelet diluting fluids
16. List three complications of venesection
17. What is cyan meth hemoglobin method
18. How do you prepare a spreader slide
19. What are the three layers in a PCV tube.
20. Components of Pilot's fluid
21. Steps of Giemsa staining
22. Micropipettes - uses

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