

**First Year B.Sc MLT Degree Supplementary Examinations
November 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. Explain haematocrit. Write the clinical significance and normal values. Describe the different methods and their principles of determining the haematocrit
2. Discuss the principles of automated blood cell counters. Name the red cell indices and write their normal values.

Short notes

(10x5=50)

3. Haemoglobin
4. Leishman stain
5. Leucopoiesis
6. Anticoagulants
7. Types of microscope
8. Platelet count
9. Supravital stains
10. Methods of detection of HbF
11. Blood collection
12. Universal safety precautions

Answer briefly

(10x3=30)

13. Thick smear
14. Stains for malarial parasite
15. WBC diluting fluid
16. Absolute eosinophil count
17. Vacutainers
18. Collection of bone marrow aspirate
19. Sickle cell preparation
20. Buffers used in staining
21. Laboratory glassware
22. Laboratory hazards