

**First Year B.Sc MLT Degree Supplementary Examinations June 2025**  
**Basic Microbiology and Immunology**  
**(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. Describe different types of laboratory safety cabinet and its applications. (7+3)
2. Enumerate moist heat methods of sterilization. Principle of autoclave and applications of autoclave in hospital (3+4+3)

**Short notes****(10x5=50)**

3. Humoral immunity
4. ELISA
5. Biological effects of complement
6. Hand disinfectants
7. Cell wall of gram-negative bacteria
8. Cytokines
9. Staining of Spirochetes
10. BOD incubator
11. Waste disposal in Microbiology laboratory
12. Nosocomial infection

**Answer briefly****(10x3=30)**

13. T-Cell
14. Bacterial Spore
15. Endotoxin
16. Name three auto-immune diseases
17. Decimal reduction time
18. Primary and secondary immune response
19. Superantigen
20. Types of filters and its applications
21. Natural killer cells
22. Method of choice for sterilization - Antibiotic solutions - Sharp instruments - Endoscopes

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