

**First Year B.Sc MLT Degree Supplementary Examinations**  
**September 2018**  
**Basic Microbiology & Immunology**

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

**Time: 3 Hours****Total Marks: 100**

- Answer all Questions.
- Draw Diagrams wherever necessary.

**Essay****(2x10=20)**

1. Name the different types of antigen-antibody reactions. Describe in detail the different types of ELISAs and their applications.
2. Classify laboratory biosafety cabinets. Describe in detail about class II biosafety cabinets

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

3. Type IV hypersensitivity reaction
4. Bacterial capsule
5. Differences between gram positive and gram negative cell wall
6. Hot air oven
7. Precipitation reactions
8. Differences between exotoxins and endotoxins
9. T cell and its subsets
10. Immunofluorescence
11. Primary and secondary immune responses
12. Contributions of Robert Koch

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

13. Rideal-Walker test
14. Nosocomial infection
15. Staining of spirochetes
16. Plasma sterilization
17. IgE
18. Anaerobic incubator
19. Pasteurization
20. Adjuvants
21. Types of radiations and the applications
22. Bacterial plasmid

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