

**First Year B.Sc MLT Degree Supplementary Examinations
December 2023
Basic Microbiology & Immunology
(Common for 2010, 2012 and 2015 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. Draw and label bacterial cell. Compare between gram positive and gram negative cell wall. Add a note on L-forms of bacteria (2+6+2)
2. Classify microbes on the basis of biohazard. Classify biosafety cabinets. Describe the principle and applications of biosafety cabinet type II

Short notes

(10x5=50)

3. B lymphocytes
4. Immunoglobulin M (IgM)
5. Chlorine compound as disinfectants
6. Immunofluorescence test
7. Type 2 Hypersensitivity reaction
8. Bacterial capsule
9. Cold sterilization
10. Anaerobic incubators
11. Negative staining
12. Humoral immune response

Answer briefly

(10x3=30)

13. Subunit vaccines
14. Central lymphoid organs
15. Superantigen
16. Carriers in infection
17. Slide flocculation test
18. Anton Van Leeuwenhoek
19. Tyndallisation
20. Glutaraldehyde
21. Plasmids
22. Staining of spirochetes