

First Year B.Sc MLT Degree Regular/Supplementary Examinations
January 2023

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. Draw a bacterial cell and describe functions of each structure. Compare gram positive and gram negative bacterial cell wall. (3+3+4)
2. Define sterilization and disinfection. Classify the different methods of moist heat sterilization. Describe the principle and applications of autoclave in a hospital setting (2+3+5)

Short notes

(10x5=50)

3. Flurochrome staining
4. Bacterial spores
5. Anaerobic incubator
6. Plasma sterilization
7. High Efficiency Particulate Air (HEPA) filter
8. Enzyme Linked Immunosorbent Assay (ELISA) and its applications
9. Mechanisms of autoimmunity
10. Biological effects of complement
11. Cytokines
12. B cells

Answer briefly

(10x3=30)

13. Koch's postulates
14. Hypochlorite
15. Immunoglobulin A
16. Artificial active immunity
17. Super antigens
18. Nosocomial infection – define with examples
19. T cell dependent antigens
20. Prozone and post zone phenomenon
21. Cleaning of glass wares
22. Inspissation
