

**First Year B.Sc MLT Degree Regular/Supplementary Examinations**  
**August 2019**

**Basic Microbiology and Immunology**

**(2016 Scheme)**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all questions.
- Draw diagrams wherever necessary.

**Essay**

**(2x10=20)**

1. List the different types of incubators. Add a brief note on principles, precautions, temperature settings and calibration of incubators. What are anaerobic incubators and walk-in incubators. Discuss the principle of working and it's applications in a clinical laboratory. (2+2+6)
2. What are immunoglobulins. Classify them. Describe the structure and functions of IgG. (2+2+6)

**Short notes**

**(10x5=50)**

3. Name the sources of infection and how it is spread.
4. Acid fast staining and it's modifications
5. Define bacterial spores. Draw different arrangements. How are they demonstrated and destroyed.
6. T cells
7. Autoclave and sterilization controls
8. Louis Pasteur
9. High level disinfectants and their application
10. Testing of disinfectants.
11. Classical complement pathway
12. Koch's postulates

**Answer briefly**

**(10x3=30)**

13. Viral vaccines
14. Antiseptics
15. Adjuvants
16. B cells
17. Sterilization by radiation
18. Decimal reduction time
19. Pasteurization
20. Flocculation tests
21. Define passive immunity. Give examples
22. Name the different types of hypersensitivity

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