

PHARMACEUTICAL MICROBIOLOGY

List of Experiments

1. Introduction to equipment and glassware used in microbiology laboratory.
2. Study of morphology of different microbes.
3. Preparation of various culture media, cultivation of microbes and observation of colony characteristics.
4. Sterilisation techniques (moist and dry heat) and their validations.
5. Aseptic transfer of culture into different types of media.
6. Characterization of microbes by staining techniques (Simple, gram's , acid fast and negative staining).
7. Study of motility of bacteria by hanging drop method.
8. Characterisation of microbes through Bio chemical reactions:
 - i. Indole test
 - ii. Methyl red test.
 - iii. Voges proskauer test.
 - iv. Starch hydrolysis test.
 - v. Fermentation of carbohydrates.
9. Isolation of pure cultures by streak plate, spread plate & pour plate techniques.
10. Enumeration of bacteria by pour plate/spread plate technique.
11. Enumeration of bacteria by direct microscopic count.
12. Evaluation of any disinfectant by phenol coefficient test.
13. Study of oligodynamic action (of metals on bacteria).
14. Preservation of microorganisms (slant and stab cultures).
15. Microbiological Analysis of Water.

ADDITIONAL EXPERIMENTS

16. Fumigation of Microbiology Laboratory.
17. Isolation of Pure culture using Spread plate method.