

- (f) Write principle of sterility testing.
- (g) What are the methods to prevent contamination in aseptic area ? 5×4=20
2. What are hypersensitivity reactions ? Describe types of hypersensitivity reactions. 15
3. (a) What are sterilisation indicators ? Explain their different types. 8
- (b) Comment on laminar air flow unit. 7
4. Give a detailed account of antigen-antibody reactions. 15
5. (a) Describe the method of preparation of diphtheria toxoid. 8
- (b) Write a note on tuberculin as diagnostic agent. 7
6. (a) Describe the design of aseptic area with flow chart. 8
- (b) Give the chemical classification of disinfectants. 7
7. Write short notes on (any 3) :—
- (a) Phenol coefficient test.
- (b) Shick test.
- (c) Sera preparations
- (d) Types of immunity. 5×3=15

B. Pharm. Fourth Semester (C.B.S.) Examination
PHARMACEUTICAL MICROBIOLOGY AND
IMMUNOLOGY—II

Paper—5

(4-T-5)

Time—Three Hours]

[Full Marks—80

N.B. :— (1) Question No. 1 is compulsory.

(2) Solve any **FOUR** questions from the remaining.

(3) Draw neat labeled diagram wherever necessary

1. Solve the following (any 5) :—

- (a) Differentiate between exotoxins and endotoxins.
- (b) Give mechanism of action of thermal method of sterilisation.
- (c) Explain the term Z-value and D value.
- (d) What are disinfectants ? Give the classification and ideal properties of disinfectants.
- (e) Comment on microbial flora of human body.