

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 labelled diagram wherever necessary.

1. Solve the following (any **FIVE**) :

(a) Explain D value and Z value.

(b) Discuss the method of evaluation of disinfectant by Rideal Walker Test.

(c) Explain inflammation and defense mechanism of host.

(d) Write in short about laminar airflow unit.

(e) Discuss the tuberculin test.

(f) Give the method of preparation of tetanus toxoid.

(g) Explain the compliment proteins.

5×4=20

2. Define antigen and antibodies and give a detailed account of various antigen antibody reactions.

15

3. (a) Define hypersensitivity and explain its types in detail.

10

(b) Comment on sterility testing of pharmaceutical products as per I.P.

5

4. Discuss the methods of preparation of :

(a) BCG vaccine

(b) Smallpox vaccine

(c) DPT vaccine.

15

5. Define sterilisation. Discuss the various methods of sterilisation used in pharmaceutical industry with their advantages and limitations. 15
6. Differentiate between :
- (a) Vaccines and Sera
 - (b) Endotoxins and Exotoxins
 - (c) Active immunity and Passive immunity. 15
7. Write short notes on (any **two**) :
- (a) Sterilisation indicators
 - (b) Sources of contamination in aseptic area
 - (c) Disinfectants. 15