

KNT/KW/16/6562

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 complement 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