



PHARMACEUTICAL MICROBIOLOGY AND IMMUNOLOGY—II

Paper—5

Time : Three Hours]

[Maximum Marks : 80

- Note :—** (1) Question No. 1 is compulsory.  
(2) Solve any **FOUR** questions from remaining.  
(3) Draw neat labelled diagrams wherever necessary.

1. Solve any **FIVE** of the following :
  - (a) Explain in brief about sterilization indicators.
  - (b) Write the sources of contamination in aseptic area.
  - (c) Discuss about the portal of entry of Microorganism.
  - (d) Explain in detail about the structure of antibody and enlist its classes.
  - (e) Write a note on ELISA.
  - (f) Define immunity and enlist the various types of immunity.
  - (g) Explain the various factors affecting disinfection activity. 5×4=20
2. Define sterilization and enlist the various methods of sterilization and elaborate the Moist heat sterilization. 15
3. (a) Draw a neat, labelled, layout for designing the Aseptic area and elaborate its parts. 8  
(b) Explain the non specific defense mechanism. 7
4. (a) Define disinfectants and classify. 8  
(b) Discuss the method of preparation of diphtheria. 7
5. (a) Discuss in detail about Antigen, Antibodies reaction. 10  
(b) Write note on radioimmunoassay. 5
6. Differentiate the following :
  - (a) Vaccines and Sera
  - (b) Antigen and antibody
  - (c) Exotoxins and Endotoxins. 15
7. Write short notes on (any **THREE**) :
  - (a) Diagnostic Agents
  - (b) BCG and Polio Vaccines
  - (c) DPT and Rabbits Vaccine
  - (d) Shick's Test. 5×3=15