

Bachelor of Pharmacy (B.Pharm) Fourth Semester  
**BP404 - Pharmaceutical Microbiology and Immunology-II**

P. Pages : 1

Time : Three Hours



**GUG/W/18/1167**

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
  2. Question No. **1** is compulsory.
  3. Illustrate your answers wherever necessary with the help of neat sketches.
  4. Solve **any four** from remaining.

1. Solve **any four** from following. 16
  - a) Define disinfection. Give the ideal properties of disinfectant.
  - b) Differentiate between sterilization and disinfection.
  - c) Define hypersensitivity. Explain in brief type I hypersensitivity.
  - d) Describe D-value and z-value.
  - e) Explain chemical indicators for s. method.
2.
  - a) Explain normal defence mechanism of host. 8
  - b) Evaluate disinfectant by Rideal walker test. 8
3. What is antigen-antibody reaction? Explain Precipitation and agglutination reaction in detail. 16
4.
  - a) Discuss principle, working and application of moist heat sterilization. 8
  - b) Classify different disinfectant. Explain factors affecting disinfectant action. 8
5.
  - a) Differentiate between vaccines and sera. Give the general method of preparation of vaccines. 8
  - b) Explain the techniques of controlling microbial population in air. 8
6.
  - a) Explain principle and working of radiation sterilization. 8
  - b) Explain method of sterilization of pharmaceutical product. 8
7. Write a short note on **any four**. 16
  - a) Complement Protein.
  - b) Gaseous Sterilization.
  - c) Radioimmunoassay.
  - d) Tuberculin & Schick test.
  - e) Differentiate between endotoxin & Exotoxin.

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