

QP CODE: 301006 (old scheme)

Reg. No:

**Third Year B.Pharm Degree Supplementary Examinations
November 2018
Pharmaceutics IV
(Pharmaceutical Microbiology and Biotechnology)
(2010 Scheme)**

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Draw diagram wherever necessary.

Essays

(3x10=30)

1. Explain the method of production of monoclonal antibodies
2. Thermal methods of sterilization
3. Describe the procedure for sterility testing of pharmaceuticals

Short notes

(14x5=70)

4. Classification of microbes
5. Different culture media for bacteria
6. Bacteriophages
7. Spore formation
8. Application of gene cloning
9. Principle and procedure of gram staining
10. Viral replication
11. Antigen antibody reactions
12. Pharmaceutical and medical applications of fungi
13. Differentiate active and passive immunization
14. Electron microscope
15. Microbial assay for antibiotics
16. Basic principles of fermentation
17. BCG vaccine
