

Third Year B.Pharm Degree Examinations - September 2014

PHARMACEUTICS IV
(Pharmaceutical Microbiology and Biotechnology)

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Draw diagram wherever necessary.

Essay

(3x10=30)

1. Describe the production, harvest and recovery of penicillin by fermentation.
2. Explain the microbial assay of antibiotics in detail.
3. Explain different methods for the cultivation of viruses.

Short notes

(14x5=70)

4. Bacterial appendages
5. Radio immunoassay
6. Differences between prokaryotes and eukaryotes
7. Reproduction of fungi
8. Hypersensitivity
9. Preparation, storage and use of B.C.G vaccine
10. Techniques of enzyme immobilization
11. Coomb's test
12. Isolation of pure culture
13. Sterility testing of large volume parenterals
14. Structure of bacteriophage
15. Different types of microscopes for bacterial identification
16. Phenotype and genotype variation
17. Ziehl-Neelsen staining
