

Third Year B.Pharm Degree Supplementary Examinations June 2017

**PHARMACEUTICS IV**  
**(Pharmaceutical Microbiology and Biotechnology)**  
**(2010 Scheme)**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Draw diagram wherever necessary.

**Essay**

**(3x10=30)**

1. Explain about various methods used for the evaluation of disinfectants.
2. Discuss in detail about active and passive immunity
3. Explain the different techniques used for enzyme immobilization.

**Short notes**

**(14x5=70)**

4. Differentiate prokaryotes and eukaryotes
5. Explain about diphtheria toxoid
6. Bacterial conjugation
7. Explain the principle, working and applications of hot air oven with neat labelled diagram
8. Significance of interferons in viral infections
9. Reproduction of virus
10. Explain about bacterial endospores
11. Electron microscope
12. Explain microbial transformation with regard to steroids
13. Acid fast staining technique
14. Preparation of BCG vaccine
15. Cultivation of anaerobic bacteria
16. Fermentation of penicillin
17. Explain about type I hypersensitivity reaction.

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