QP CODE:301006 Reg.No: ......

Third Year B.Pharm Degree Supplementary Examinations - August 2015

## **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. Discuss the bacterial staining in detail. Add a note on acid fast staining.
- 2. Discuss the preparation and applications of monoclonal antibodies.
- 3. Discuss the fermentative production of alcohol.

Short notes (14x5=70)

- 4. Bacterial reproduction
- 5. Radiation sterilization
- 6. Types of antigen antibody reactions
- 7. Validation of sterilization process
- 8. Fungi of pharmaceutical importance
- 9. Fermentor and its parts
- 10. Evaluation of disinfectants
- 11. Examples of microbiological transformation
- 12. Advantages of enzyme immobilization
- 13. Bacterial taxonomy
- 14. Structure of virus
- 15. Protoplast fusion
- 16. Applications of gene cloning
- 17. Isolation of pure culture

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