

[KZ 4266]

Sub. Code : 4266

**THIRD B.PHARM. EXAMINATION**  
(Common to regulation 2004 – IV year candidates)

**PHARMACEUTICAL BIOTECHNOLOGY**

*Q.P. Code : 564266*

**Time : Three hours**

**Maximum: 100 Marks**

**Answer ALL questions.**

**I. LONG ESSAYS**

**(2 x 20 = 40)**

1. a) Describe the structure of Bacteria with neat diagram.  
b) Microbiological assay of antibiotics.
2. a) Discuss the various types of sterilization with examples.  
b) Explain the production of Monoclonal antibodies with applications.

**II. SHORT NOTES**

**(8 x 5 = 40)**

1. Test for Sterility.
2. Evaluation of Disinfectants.
3. Microbial Biotransformation.
4. Hypersensitivity Reactions.
5. Cloning Vectors.
6. Production of Alcohol.
7. Media for Animal cell culture.
8. Methods of Immobilization.

**III. SHORT ANSWERS**

**(10 x 2 = 20)**

1. Lytic and Lysogenic cycle.
2. Conjugation.
3. Functions of MHC.
4. Southern blot.
5. Gene expression.
6. Source of organisms for the production of citric acid
7. Primary culture.
8. Biosensors.
9. Cell Line with Examples.
10. Live bacterial vaccines.

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