

Roll No. ....

**RGPVONLINE.COM**

**PY-704(N)**

**B. Pharm. (Seventh Semester)**

**EXAMINATION, Dec., 2011**

**PHARMACEUTICAL BIOTECHNOLOGY**

**[PY-704(N)]**

*Time : Three Hours*

*Maximum Marks : 70*

**Note :** Attempt any *five* questions. All questions carry equal marks.

1. Discuss the kinetics of enzyme inhibition and action. Write about the enzyme immobilization techniques and applications in pharmaceuticals. 14
2. Explain various parameters to be considered for fermentive production of antibiotics. Give complete account of fermentive production of Streptomycin and Vitamin B<sub>12</sub>. 14
3. Describe various uses of monoclonal antibodies. What is the basis of selection of hybridoma in the HAT medium ? 14
4. Write notes on any *two* of the following : 14
  - (i) Antigen-Antibody reaction and their application
  - (ii) Kinetics and factors affecting enzyme kinetics
  - (iii) Fermentative production of alcohol
5. What are the various methods of study of cell surface antigens ? How can you isolate a particular antigen using antibody ? 14

**RGPVONLINE.COM**

suitable example.

7. Write notes on any *four* of the following : 14

- (i) Enzyme based sensors
- (ii) Drug delivery systems in gene therapy
- (iii) Hybridoma technology
- (iv) Hyaluronidase enzyme
- (v) Fermenter and its design
- (vi) Cellular humoral immunity

**RGPVONLINE.COM**