

Code No: B133202

**R13****SET - 1****III B. Pharmacy II Semester Regular/Supplementary Examinations, April – 2018****PHARMACEUTICAL BIOTECHNOLOGY**

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)  
2. Answering the question in **Part-A** is Compulsory  
3. Answer any **THREE** Questions from **Part-B**

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**PART -A**

1. a) Differentiate between Humoral immunity and cell mediated immunity. (4M)
- b) Define enzyme immobilization and write its advantages over isolated enzymes. (3M)
- c) Mention the applications of proteomics and genomics. (4M)
- d) Write about the media and conditions used for Alcohol production. (4M)
- e) Write about the applications of bioconversion. (3M)
- f) Write a note on Strain improvement. (4M)

**PART -B**

2. a) Describe the fermentative production and recovery of Streptomycin and its uses. (10M)
- b) Describe the production and recovery of Lactic acid. (6M)
3. a) Describe the production of Human Insulin by R-DNA Technology. (10M)
- b) Discuss about applications of monoclonal antibodies in clinical diagnosis. (6M)
4. a) Describe the design and operation of Bioreactor. (10M)
- b) Explain the principle and procedure involving in downstream process. (6M)
5. a) Discuss about different techniques of immobilization of enzymes. (10M)
- b) Describe the importance of (6M)
  - a) Streptokinase
  - b) Amylase
6. a) Define immunity. Write about antigen-antibody reactions. (10M)
- b) Write about active and passive immunization. (6M)
7. a) Write about collection, processing and storage of Catgut. (8M)
- b) Explain about Plasma substitutes. (8M)