

B. Pharm. Fourth Semester
35158 : Pharmaceutical Biotechnology : T-4.4

P. Pages : 1

Time : Three Hours



AU - 0673

Max. Marks : 60

- Notes :
1. All question carry equal marks.
 2. Answer **any five** questions.
 3. Illustrate your answer necessary with the help of neat sketches.
 4. Use of pen Blue/Black ink/refill only for writing the answer book.

1. What is semiconservative replication? Explain replication of DNA in prokaryotics. 12
2. Write in detail about gene cloning with their application. 12
3. a) Explain different types of fermenter. 6
 b) Discuss isolation of fermentation product with special reference to penicillin. 6
4. What is biotransformation. Explain different types of reaction mediated by microorganisms. 12
5. a) Define Enzyme Immobilization. Explain different methods of Enzyme Immobilization. 7
 b) Discuss factors affecting Enzyme kinetics. 5
6. Explain in detail about Transformation, Conjugation and Transduction. 12
7. Short note on **any two**. 12
 - a) Transcription.
 - b) Gene Therapy and their application.
 - c) Historical development of antibiotics.
