

Exam.Code:1033

Sub. Code: 35404

2056

M.E. (Bio-Technology) Second Semester  
Elective - II  
MEBIO-205: Pharmaceutical Biotechnology

Time allowed: 3 Hours

Max. Marks: 50

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

1. Explain the following:-

- Define Good Manufacturing Practices (GMP).
- Principle of liposomal drug delivery systems.
- Mention any two regulatory agencies overseeing drug approval.
- What are molecular descriptors used in QSAR?
- Enlist two factors affecting drug metabolism.

(5x2)

**UNIT - I**

- Give a detailed account of importance of ADME in drug development and discuss the various factors affecting ADME of drug. (10)
- Discuss in detail liposomes as advanced drug delivery system. (10)
- Write a short note on:-
  - Host related factors affecting immunogenicity
  - Vaccines as biopharmaceuticals(5,5)

**UNIT - II**

- Name different approaches employed for ligand based drug designing. Give the principle and methodology of any one approach in detail. (10)
- Explain different mathematical models used to analyze drug release kinetics from pharmaceutical formulations. (10)
- Give an overview:-
  - History of pharmacy
  - Statistical parameters used in QSAR(5,5)

x-x-x