

# 2010 Scheme

QP CODE: 304006

Reg. No: .....

## Third Year B.Pharm Degree Supplementary Examinations March 2025

### Pharmaceutics - V (Biopharmaceutics and Pharmacokinetics)

Time: 3 Hours

Total Marks: 100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays

(3x10=30)

1. Define drug absorption. Discuss in detail about the various mechanisms of drug absorption.
2. Describe the various physiological barriers affecting distribution of drugs.
3. Explain important pharmacokinetic and pharmacodynamic parameters with the help of plasma drug concentration-time profile.

Short notes

(14x5=70)

4. Surface renewal theory of dissolution.
5. Classification of drugs according to the biopharmaceutical classification system.
6. Pharmaceutical factors affecting GI absorption of drugs.
7. Types and calculations of volume of distribution.
8. Kinetics of protein-drug binding.
9. Explain biliary excretion and hepatic clearance.
10. Objectives and design of bioequivalence study.
11. Two compartment open models after IV bolus injection.
12. Microsomal enzymes in drug metabolism.
13. Compartment models and its applications.
14. Explain In vitro – in vivo correlations.
15. Loading dose and maintenance dose.
16. Explain the concept of clearance
17. Explain Michaelis-Menten equation.

\*\*\*\*\*