

QP Code: 624006

Reg. No.....

**Sixth Semester B. Pharm Degree Regular/Supplementary
Examinations November 2025
Biopharmaceutics and Pharmacokinetics
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

- *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 diagrams wherever necessary*

Essays

(2x10=20)

1. Discuss the patient-related factors influencing the absorption of drugs through GIT with examples.
2. What is meant by non linear pharmacokinetics. Explain the Michaelis-Menton method of estimating K_m and V_{max} .

Short Notes

(7x5=35)

3. Write briefly about in vivo-in vitro correlations and BCS classification.
4. Explain the rate-limiting steps in drug absorption.
5. Write notes on loading dose, maintenance dose, and accumulation index.
6. Explain the one-compartment model following intravenous injection.
7. Discuss various methods involved in the determination of bioavailability.
8. Renal impairment and creatinine clearance.
9. Explain steady-state drug level in one compartment open model continuous intravenous infusion.

Answer Briefly

(10x2=20)

10. Write about the characteristics of pore transport mechanisms.
11. Name the various drug binding sites on HSA with one example each.
12. What are the characteristics of microsomal enzymes.
13. What are the objectives of phase I metabolic reactions.
14. List the factors influencing the renal excretion of drugs.
15. What are the various physiological models.
16. Briefly explain active tubular secretion of drugs.
17. What is active transport.
18. Define volume of distribution.
19. What are the various types of bioequivalence studies.

CORRECTION / NO-CORRECTION FILE
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QPCODE: 624006

Dated: 01-12-2025

Question No.5

Modified as "Write notes on loading dose and maintenance dose."

Corrections/Modifications/Replacement of Questions if any shall be made available to all students. Take the print out of the Correction File in such cases and distribute to all students.

(Sd/-)

CONTROLLER OF EXAMINATIONS