QP Code: 624006 **Reg. No……**

Sixth Semester B. Pharm Degree Supplementary Examinations
March 2026
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 factors affecting drug metabolism.
2. Define Absorption. Explain the various mechanisms of drug absorption through GIT.

Short Notes **(7x5=35)**

3. Explain the kinetics of protein binding.
4. Discuss in detail in-vitro dissolution models.
5. Derive the equation for a two-compartment open-model intravenous infusion.
6. Explain the role of physiological barriers to drug distribution.
7. Write a note on physiological pharmacokinetic models.
8. Give a brief summary of the kinetics of multiple dosing.
9. Explain the factors causing non-linearity.

Answer Briefly **(10x2=20)**

10. Define biopharmaceutics and pharmacokinetics.
11. What is relative bioavailability.
12. What is the BCS classification.
13. Equate the rate of excretion.
14. Enterohepatic cycling.
15. Mention the pharmaceutical formulation factors for drug absorption.
16. Define MRT.
17. Competitive protein binding with an example.
18. Define biological half-life (t½).
19. What is drug disposition.

****

CORRECTION / NO-CORRECTION FILE

QPCODE: 624006 Dated: 30-03-2026

Question No. 5

Modified as "Derive the equation for a two-compartment openmodel intravenous bolus."

Question No. 13

Modified as "Rate of excretion"

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