

QP Code: 624006

Reg. No.....

**Sixth Semester B. Pharm Degree Regular/Supplementary
Examinations February 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. Describe the various physiological barriers affecting distribution of drug.
2. Discuss the one compartment open model for IV bolus administration.

Short Notes

(7x5=35)

3. Write in detail about physiological factors effecting drug absorption.
4. Advantages and applications of the compartment modelling approach.
5. Define clearance. Write a note on renal clearance
6. Define dissolution. Explain various methods to enhance the dissolution of poorly soluble drugs.
7. Define Physiological models, its advantages and disadvantages.
8. Briefly compare single dose with multiple dose bioavailability studies.
9. Write the significance of non linear pharmacokinetics in drug absorption and drug metabolism.

Answer Briefly

(10x2=20)

10. Define absorption and distribution of drugs.
11. Define phase I and phase II reactions.
12. Write about BCS classification of drugs with examples.
13. Objectives of bioequivalence studies.
14. Define intravenous infusion.
15. Draw the plasma concentration Vs time profile for a drug administered by extravascular route.
16. Define biological half life ($t_{1/2}$)
17. The two major parameters that can be adjusted in developing a dosage regimen are-
18. State Michaelis-Menten equation
19. Enlist any two drugs that follows non linear pharmacokinetics.
