

Q.P. Code: 405326

Reg. no.:

**Fourth Year Pharm D Degree Regular/Supplementary Examinations
August 2024**

Biopharmaceutics & Pharmacokinetics

Time: 3 Hours

Total Marks: 70

- *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. Discuss in detail two-compartment open model for a drug administered as IV Bolus. Give the schematic representation, graphs and equations for the same.
2. Explain in detail about pH-partition theory with importance and its limitations.
3. Discuss in detail the various physico-chemical factors affecting drug absorption.

Short notes:

(8x5=40)

4. Give the differences between passive diffusion and active transport.
5. Discuss the various considerations for bioequivalence studies.
6. Write the equations to calculate the steady state maximum, minimum and average drug concentrations.
7. Phase II Biotransformation.
8. Explain the various factors leading to non-linearity.
9. Explain renal clearance of drugs.
10. Explain intra cellular and extra cellular binding of drugs.
11. Write about the advantages and disadvantages of compartment modeling.
