

Q.P. Code: 405326

Reg. no.:

**Fourth Year Pharm D Degree Regular/Supplementary Examinations
June 2023**

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 one-compartment open model for a drug administered as IV infusion and write the schematic representation, graphs and equations.
2. Explain various pharmacokinetics parameters involved after oral administration of drug following one compartment open model.
3. Explain the various mechanisms of drug absorption.

Short notes:

(8x5=40)

4. Define drug distribution and write the factors affecting of drug distribution.
5. Explain the process of renal elimination.
6. Briefly explain blood brain barrier.
7. Write about the significance of protein binding.
8. Discuss in detail on phase I reactions.
9. How do you determine KE using rate of excretion method from urine data.
10. Explain any two methods of assessment of bioavailability.
11. Write the difference between absolute and relative bioavailability.
