

Q.P. Code: 405326

Reg. no.:

**Fourth Year Pharm D Degree Regular/Supplementary Examinations
July 2022**

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 the different mechanisms involved in drug absorption
2. How to determine KE from urinary excretion data after an IV bolus administration of a drug.
3. Explain the kinetics of one compartment open model IV infusion and write a note on loading dose.

Short notes:

(8x5=40)

4. Differentiate apparent volume and real volume of distribution.
5. State the difference between Phase I and Phase II reaction with example.
6. How to determine the exponents in two compartment open model extra vascular drug administration.
7. How to determine absorption rate constant using Wagner Nelson method.
8. Mention the pharmacokinetic parameters involved in plasma concentration – time profile study.
9. Discuss non-compartmental pharmacokinetics.
10. Study designs of bioequivalence studies.
11. Explain the non-linearity causes due to drug metabolism and drug excretion.
