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 procedure and equations involved in the determination of mean residence time for multi compartment model

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 the principle involved in superposition.
10. Describe about completely randomized design and randomized block design.
11. Explain the non-linearity causes due to drug metabolism and drug excretion.

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