

Q.P. Code: 405326

Reg. no.:

**Fourth Year Pharm D Degree Regular/Supplementary Examinations
January 2021**

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 physiological barriers affecting the distribution of drugs
2. How to assess pharmacokinetic parameters after extravascular drug administration in one compartment open model.
3. Explain the procedure for determining K_m and V_{max} in Michaelis Menten equation at steady state concentration

Short notes:

(8x5=40)

4. Explain the relationship between renal clearance values and mechanism of clearance
5. State any two pharmaceutical dosage form factors influencing gastrointestinal absorption.
6. Explain the applications of pharmacokinetic model.
7. How to determine the exponents in two compartment open model extra vascular drug administration.
8. Describe the importance and applications of non-compartmental analysis.
9. Explain the protocol for determination of bioavailability
10. Discuss the correlation between drug pK_a and gastro intestinal pH on drug absorption.
11. Discuss any two bioequivalence study design.
