

PARUL UNIVERSITY
FACULTY OF PHARMACY
B.Pharm. Summer 2018-19 Examination

Semester: 6**Subject Code: 08101354****Subject Name: Biopharmaceutics & Pharmacokinetics-I****Date: 09/04/2019****Time: 10:00 am to 1:00 pm****Total Marks: 75****Instructions:**

1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

Q.1 Essay type Questions. (Any 2 out of 3) (10 marks each) (20)

1. Enlist factors affecting on Drug Absorption. Explain any three factors in detail.
2. Classify the methods for bioavailability measurement. Discuss the method based on plasma data.
3. Explain the methods for determination of absorption rate constant in detail

Q.2 Short Essay type Questions. (Any 7 out of 9) (5 marks each) (35)

1. Describe Michaelis Menten equation with evaluation parameters
2. Write note: Drug distribution to blood brain barrier.
3. Enlist various approaches for pharmacokinetic analysis of experimental data and explain compartmental models in detail.
4. Write a short note on noncompartmental analysis
5. Explain drug transport. Describe carrier mediated transport.
6. Write a short note on Waiver of Bioavailability/Bioequivalence Studies.
7. Explain latin-square cross-over design with layout for Bioequivalence study.
8. Explain in brief application of pharmacokinetic.
9. Explain factors affecting on distribution of drug.

Q.3 Answer in short. (2 marks each) (20)

1. Differentiate Absolute and Relative bioavailability.
2. What is gastric emptying? Describe its role in drug absorption.
3. What is principle of superposition?
4. What process of drug ADME are known to show non linearity by giving suitable examples.
5. Define clearance and total body clearance.
6. What is extraction ratio w.r.t Excretion ?
7. Comment and Justify: Creatinine is used to estimate GFR
8. What is Mean Residence Time ?
9. Name different methods for determination of K_e from urinary excretion data.
10. Difference between Compartment and Physiological Models.