

PARUL UNIVERSITY
FACULTY OF PHARMACY
Pharm.D Examination May- 2018

Year: 4**Subject Code: 08207405****Subject Name: Biopharmaceutics & Pharmacokinetics****Date: 16/05/2018****Time: 02:00PM TO 05:00PM****Total Marks: 70****Instructions**

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

Q.1 Essay Type Questions. (any 2 out of 3) (15 Mark Each) (30)

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 4 out of 5) (5 Mark Each) (20)

1. Describe Michaelis Menten equation with evaluation parameters
2. Write a note on 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 non-compartmental analysis.
5. Define drug transport. Describe carrier mediated transport.

Q.3 Short Answers. (2 Mark Each) (20)

1. Differentiate between 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? Give suitable examples.
5. Define clearance, total body clearance and organ 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. Write difference between Compartment and Physiological Models.