

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BPHARM 1022]

**OCTOBER 2022
(MARCH 2022 EXAM SESSION)**

Sub. Code: 2065

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER VI
PAPER IV – BIOPHARMACEUTICS AND PHARMACOKINETICS
Q.P. Code : 562065**

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Discuss the elements of protocol for bioequivalence studies.
2. Estimate the Pharmacokinetics parameters of the drug using Sigma minus method adopting one compartment open model for a bolus Intravenous Injection.
3. Explain the patient related factors influencing the absorption of drugs through GIT with examples.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Clinical significance of protein binding of drugs.
2. Factors causing Non-linearity.
3. Michaelis-menton method of estimating parameters.
4. Phase I metabolism.
5. Non compartment models.
6. Method of residuals.
7. Loading and maintenance doses.
8. Absolute and relative bioavailability.
9. Non renal routes of drug excretion of drugs.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Active transport.
2. Renal clearance.
3. MRT.
4. Michaelis-menton equation.
5. Physiological Barriers.
6. Non linear pharmacokinetics.
7. Drug disposition.
8. Therapeutic window.
9. Biological half life ($t_{1/2}$).
10. Volume of distribution (vd).
