

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

**[BPHARM 0522]**

**MAY 2022**

**Sub. Code: 2065**

**(SEPTEMBER 2021 EXAM SESSION)**

**B. PHARMACY DEGREE EXAMINATION**

**PCI Regulation 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. Explain the pharmaceutical factors influencing the absorption of drug through GIT with examples.
2. Explain the Michaelis - Menton method of estimating parameters.
3. Explain the methods to enhance the dissolution rate and bioavailability of poorly soluble drugs.

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

1. Explain the Clinical significance of protein binding of drugs.
2. Explain the Non renal routes of drug excretion of drugs
3. Bioequivalence studies
4. Explain the steady state drug levels and calculation of loading doses.
5. Explain the Factors causing Non-linearity.
6. Explain the elimination rate constant.
7. Explain the physiological models
8. Explain the Non compartment models
9. Methods of assessment of bioavailability

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

1. Tissue Permeability.
2. What is relative bioavailability
3. What is apparent volume of distribution
4. Renal clearance
5. Any two phase II reactions
6. In-vitro-in-vivo correlations
7. AUC
8. Steady state concentration
9. MRT
10. Maintenance dose

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