

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

[LM 342]

MAY 2018

Sub. Code: 2903

**M.PHARM. DEGREE EXAMINATION
FIRST YEAR
BRANCH I – PHARMACEUTICS
PAPER III – BIOPHARMACEUTICS AND PHARMACOKINETICS**

Q.P. Code : 262903

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Explain in detail the mechanisms involved in the Gastrointestinal absorption of drugs.
2. Enumerate the Pharmacokinetic and Pharmacodynamic methods involved in the determination of bio-availability.

II. Write notes on:

(10 x 6 = 60)

1. Mention the physico-chemical factors affecting drug absorption.
2. Differentiate apparent and real volume of distribution.
3. Write the effect of protein – drug binding on pharmacokinetic parameters.
4. Write the role of oxidation and reduction process in bio-transformation.
5. Discuss the principle involved in renal excretion of drugs.
6. Derive zero order rate constant equation.
7. Explain the concept involved in one compartment i.v bolus drug administration.
8. State the reasons for non linearity.
9. Write the formula to calculate loading dose and maintenance dose.
10. Write a note on drug – food interactions.
