

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

[LQ 0121]

JANUARY 2021

Sub. Code: 2936

(APRIL 2020 EXAM SESSION)

M.PHARMACY DEGREE EXAMINATION

SEMESTER-II (PCI New regulations 2016)

PHARMACEUTICS – MPH

PAPER II – ADVANCED BIOPHARMACEUTICS AND PHARMACOKINETICS

Q.P. Code : 262936

Time : Three hours

Answer ALL Questions

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail the biopharmaceutical considerations in designing the drug product. Add a note on *in vitro* drug product performance using suitable methods.
2. Write a note on:
 - a) Non linear Pharmacokinetics including factors causing on non linearity.
 - b) The design and evaluation of bio equivalence studies and its significance.

II. Write notes on:

(7 x 5 = 35)

1. pH partition hypothesis and its limitations.
2. Methods for assessing the bio availability of a drug.
3. Derive the pharmacokinetic equations of two compartment model of IV bolus administration.
4. Effect of drug- protein and drug-tissue binding interactions.
5. Biosimilar drug (generic biologics) products and their applications.
6. Factors affecting the dissolution rate of dosage forms.
7. Pharmacokinetic models and their significance.
