

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

[PHARMD 1122]

**NOVEMBER 2022
(OCTOBER 2022 EXAM SESSION)**

Sub. Code: 3823

**PHARM 'D' AND PHARM. 'D' (POST BACCALAUREATE) DEGREE
EXAMINATION
FOURTH YEAR
PAPER V – BIOPHARMACEUTICS & PHARMACOKINETICS
Q.P. Code : 383823**

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Define absorption and discuss briefly about various mechanisms of absorption.
2. Enlist barriers for drug distribution and explain them briefly.
3. Explain various methods for enhancement of bioavailability for poorly soluble drugs.
4. Explain the Pharmacokinetic concepts involved in repetitive extravascular dosing for one compartment open model.

II. Write notes on:

(6 x 5 = 30)

1. Significance of protein bindings.
2. What are the advantages and disadvantages of pH partition hypothesis?
3. How are K_m and V_{max} estimated?
4. Write brief about entero-hepatic recycling
5. Discuss briefly about two compartment IV infusion model.
6. A series of drugs, weak bases have been developed. The best two drugs have measured pK_a values of 9.7 and 8.7. Which drug would be better absorbed from the small intestine (pH 7.2).
