

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

[PHARMD 0423]

APRIL 2023

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

Answer ALL Questions

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. What is protein binding? Explain in brief about plasma proteins participating in binding of drug.
2. Differentiate empirical model with physiological model.
3. How is two compartment IV bolus model calculated?
4. What are measures to be considered for multiple dosing?

II. Write notes on:

(6 x 5 = 30)

1. How does percutaneous absorption happen?
2. What are methods used to study absorption?
3. Draw a plasma level time curve with parameters
4. What are benefits and criteria for urinary data analysis?
5. Discuss briefly about two compartment oral open model.
6. Exactly 300 mg of a drug is dissolved into an unknown volume of distilled water. After complete dissolution of the drug, 1 mL samples were removed and assayed for the drug. The following results were obtained: Assuming zero-order decomposition of the drug, what was the original volume of water in which the drug was dissolved?

Time (hours)	Concentration (mg/mL)
0.5	0.45
2.0	0.3
