

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

[LP 342]

OCTOBER 2019

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. Define drug metabolism. Explain oxidative, reductive and hydrolytic reactions with suitable examples.
2. Give different approaches to pharmacokinetic analysis. Explain one compartment open model intravenous bolus administration and intravenous infusion.

II. Write notes on:

(10 x 6 = 60)

1. Explain endocytosis.
2. Define distribution. Explain apparent volume of distribution.
3. Discuss acetylation and methylation reaction.
4. Explain active tubular secretion.
5. Why are first order processes said to follow linear kinetics? Explain them.
6. Define clearance. Explain total body clearance.
7. Explain with significance the parameters used in bioavailability determination by plasma level studies.
8. Explain biopharmaceutical classification system.
9. Discuss therapeutic drug monitoring.
10. Explain non compartmental analysis.
