

[LO 823]

MAY 2019

Sub. Code: 3823

**PHARM. 'D' AND PHARM. 'D' (POST BACCALAUREATE)  
DEGREE EXAMINATION  
(2009-2010 Regulation)  
FOURTH YEAR  
PAPER V – BIOPHARMACEUTICS AND PHARMACOKINETICS**

*Q.P. Code: 383823***Time : Three hours****Maximum : 70 Marks****I. Elaborate on:****(4 x 10 = 40)**

1. Define Non Linear Pharmacokinetics. Explain Michaelis-Menten equation with respect to the estimation of  $K_m$  and  $V_{max}$ .
2. Define Absorption. Explain briefly about different mechanism of drug Absorption.
3. Define Bioavailability. Explain various methods used for determination of Bioavailability.
4. Explain briefly the two compartmental open model extra vascular administration.

**II. Write notes on:****(6 x 5 = 30)**

1. Discuss protocol bioequivalence study.
2. Explain the formulation factors that affect drug Absorption.
3. Apparent volume of distribution and its significance.
4. Explain elimination rate constant and clearance of the drugs.
5. A new drug was given in a single intravenous dose of 200mg to an 80kg adult male patient. After 6 hours the Plasma drug concentration of drug was 1.5mg/100ml of Plasma. Assuming that the apparent  $V_D$  is 10% of body weight. compute the total amount of drug in the body fluids after 6 hours. What is the half-life of this drug?
6. Describe open one compartment model IV bolus administration.

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