

Subject Code: PCE31A/[R13]

M. Pharm I Semester Regular/ Supplementary Examinations, April, 2015  
**BIOPHARMACEUTICS & PHARMACOKINETICS**

(Common to Pharmaceutics, Pharmaceutical and Technology)

Time: 3 Hours

Max Marks: 60

Answer any FIVE questions  
All questions carry EQUAL marks

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1. Define Bioavailability and Bioequivalence and explain the methods of enhancing dissolution rate.
2. What are compartment models? Derive an expression for calculation various pharmacokinetic parameters for a drug administered by IV bolus administration.
3. What are the causes of non-linearity. How will you check non-linearity and explain Michaelis- Menten equation.
4. Explain about Chronopharmacokinetics.
5. Explain the following
  - a. Altered kinetics in pregnancy and child birth
  - b. Influence of alcohol, smoking & food on drug action.
6. Define clearance and write about concept of clearance.
7. Write a note on
  - a. pH Partition of theory
  - b. Complexation and polymorphism on drug absorption.
8. What are drug interactions? Explain the various types of drug-drug interactions mediated through ADME.

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