

Third Year B.Pharm Degree Supplementary Examinations - March 2015

PHARMACEUTICS - V
(Biopharmaceutics and Pharmacokinetics)

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Write equations wherever necessary.

Essay

(3x10=30)

1. Describe the different mechanisms of drug absorption
2. Describe the various factors affecting drug distribution in the body.
3. Describe the kinetics of one compartment open model I.V bolus administration and determination of the various pharmacokinetic parameters.

Short notes

(14x5=70)

4. Significance and limitations of pH partition hypothesis.
5. Importance of apparent volume of distribution in drug disposition
6. What are the primary objectives of phase I reaction. Mention two examples of hydrolytic reactions in biotransformation of drugs.
7. Explain the mechanisms in renal clearance of drugs.
8. Compartment modeling
9. Biliary excretion of drugs
10. Explain the sigma minus method in urine data analysis.
11. Design of single dose bioequivalence study
12. Significance of perfusion rate
13. What is meant by dose dependent kinetics. What are the tests for non-linearity in pharmacokinetics.
14. Determination of first order absorption rate constant in one compartment kinetics by the method of residuals after extra vascular administration
15. Different methods for assessment of bioavailability of drugs.
16. Any two official dissolution apparatus.
17. Determination of elimination rate constant in one compartment open model continuous IV infusion.