

Third Year B.Pharm Degree Examinations - November 2013

PHARMACEUTICS - V
(Biopharmaceutics and Pharmacokinetics)

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Write equations wherever necessary.

Essay

(3x10=30)

1. Discuss various physicochemical factors affecting drug absorption
2. Explain plasma protein binding of drugs
3. Explain the kinetics of one compartment open model IV bolus administration and estimation of the different pharmacokinetic parameters

Short notes

(14x5=70)

4. Blood brain barrier
5. Two mechanisms of drug absorption
6. Endocytosis
7. Glutathione conjugation in biotransformation
8. Factors affecting renal clearance
9. Compartment modeling
10. Loading dose
11. Determination of first order absorption rate constant by method of residuals
12. Method for determination of renal excretion rate constant
13. Detection of non linearity in pharmacokinetics and Michaelis Menton equation
14. Two methods for determination of K_m and V_{max} in non linear pharmacokinetics following IV bolus dose
15. Acceptance criteria for dissolution studies
16. Hepatic clearance
17. Design of single dose bio equivalence studies
