



1. Explain the various mechanisms of drug absorption. What are experimental methods to determine drug solubility?
2. Discuss in detail one-compartment open model for a drug administered extravascularly. Give the schematic representation, graphs and equations for the same.
3. Explain the biopharmaceutical considerations in drug development design.
4. Define Bioequivalence. Explain the purpose of bioequivalence studies.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

5. Write a short note of pH partition hypothesis.
6. Write Noyes-Whitney equation. What are the factors affecting dissolution rate?
7. What is effect of tablets on drug absorption?
8. Discuss the various study designs in for performing bioavailability.
9. Explain various pharmacokinetic parameters after oral administration of drug.
10. Write about the advantages and disadvantages of compartment modeling.
11. What are the special concerns in performing bioequivalence studies for generic substitution?
12. Describe the application of pharmacokinetics in the development of biotechnological products.
13. Write a short note on biosimilar drug products.
14. Explain the various factors leading to non-linearity.

* * * * *