

**Time: Three Hours**

**Max. Marks: 100 Marks**

**Bio-Pharmaceutics and Pharmacokinetics**

**(Revised Scheme 4)**

**Q.P. CODE: 9338**

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary. Answer any ten questions.

**LONG ESSAY (Answer any TEN)**

**10 X 10 = 100 Marks**

1. Enumerate the different methods of determining absorption. Discuss in detail in-vitro methods.
2. Discuss in detail physico-chemical factors affecting the absorption of drugs.
3. Explain volume of distribution. How volume of distribution is estimated? Give its significance.
4. Define the terms relative and absolute and bioavailability. Explain different methods used to determine AUC.
5. Explain the pharmacokinetics of a drug given by extravascular route which follows one compartment open model.
6. How do you determine elimination rate constant using urinary excretion data?
7. Explain the process of renal excretion of drugs.
8. Discuss the causes of non-linearity in pharmacokinetics and write briefly the tests to determine the same.
9. Define drug dissolution and explain various theories of drug dissolution.
10. What are the main factors that influence drug dosing in renal disease? Explain briefly the different methods for adjusting drug dose in renal disease.
11. Write a note on therapeutic drug monitoring.
12. Explain about Biopharmaceutics classification system.

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