



**Biopharmaceutics and Pharmacokinetics**

**(Revised Scheme 4)**

**Q.P. CODE: 9338**

Your answers should be specific to the questions asked.  
Draw neat, labeled diagrams wherever necessary.

**LONG ESSAY (Answer any TWO)**

**2 X 20 = 40 Marks**

1. Explain various methods to improve bioavailability of poorly water-soluble drugs.
2. Explain in detail non-per oral routes drug absorption.
3. What are the assumptions of two compartmental model? Explain two compartmental open model with i.v bolus drug administration. Derive various pharmacokinetic parameters of the same.

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. Write about physiological Pharmacokinetic model. Comment on statistical moment theory.
5. Explain one compartment open model with extravascular drug administration along with various pharmacokinetic parameters.
6. Explain in detail about bio equivalence study.
7. Write a note on Phase II Biotransformation reactions.
8. Describe Noyes-Whitney's equation. Comment on similarity and dissimilarity factors.
9. Dose adjustment in renal and hepatic impairment

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. Kinetics of protein binding
11. Non renal excretion of drugs

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