



**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 approaches to improve dissolution of poorly water soluble drugs.
2. Explain in detail about the absorption drugs from non-per oral routes.
3. Differentiate between compartmental model and physiological model. Explain one compartment open model with extravascular drug administration along with various pharmacokinetic parameters.

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. Measurement of bioavailability
5. Explain Phase II reactions with examples.
6. Explain in detail about the concept of clearance along with equations.
7. Explain kinetics protein binding. Write its significance.
8. Explain the importance of therapeutic drug monitoring in individualization of a drug therapy.
9. Write the causes for non-linearity. Write about the method of detection.

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. Application of pharmacokinetics in new drug development
11. Accumulation index

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