M.PHARM. DEGREE EXAMINATION
FIRST YEAR
BRANCH I – PHARMACEUTICS
PAPER III – BIOPHARMACEUTICS AND PHARMACOKINETICS

Q.P. Code : 262903

Time : Three hours   **Maximum : 100 marks**

I. Elaborate on: (2 x 20 = 40)

1. a) Draw the structure of cell membrane with the emphasis on composition.
   b) Explain the different mechanism involved in drug absorption.

2. a) Describe the Pharmacokinetic and Pharmacodynamic methods meant for the measurement of bioavailability.
   b) Add a note on non compartmental methods.

II. Write notes on: (10 x 6 = 60)

1. Volume of distribution.

2. Drug penetration approaches to central nervous system.

3. Explain oxidative reaction (phase I) with a suitable examples.

4. Differentiate renal and non renal excretion.

5. Derive the equation for open one compartment model, intravenous bolus administration.

6. Mention the reasons for non linear pharmacokinetics.

7. Specify GCP guidelines related to bioequivalence studies.

8. How to determine loading dose and maintenance dose?

9. Explain the pharmacokinetic variability during renal disease.

10. Discuss drug – drug interaction with example.

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