B. Pharm.
(SEM. VI) EXAMINATION, 2006-07
BIOPHARMACEUTICS & P'KINETICS
(PHARMACEUTICS - VIII)

Time : 3 Hours] [Total Marks : 80

Note :  (1) Attempt all the questions.
(2) All questions carry equal marks.
(3) Be precise in your answer.

1 (a) Define the terms 1×4=4
(i) Biopharmaceutics
(ii) Drug absorption
(iii) Drug distribution
(iv) Pharmaco kinetics

(b) What are the various mechanisms of drug absorption? Discuss the mechanism of passive diffusion.

OR

(b) Discuss physicochemical factors affecting absorption of drug.

(c) Write a note on plasmagrotein landing of a drug.

V-5058] 1 [Contd...
2 Attempt any two:
   (a) What is plasma drug concentration time profile. Discuss the pharmacokinetic parameters which can be determined from such a profile.
   (b) What are pharmacokinetic models? What is the importance of developing such models?
   (c) Discuss zero order and first order absorption rate constants.

3 Answer any two:
   (a) Discuss one compartment open model for i.v. infusion.
   (b) Discuss the terms:
       (i) Apparent vol. of distribution
       (ii) Elimination rate const.
   (c) Discuss the criteria for obtaining urinary excretion data. Discuss its advantages and disadvantages in assessment of pharmacokinetic parameters.

4 Write short notes on (any four):
   (a) Dosage legumen
   (b) Adjustment of dose in renal diseases.
   (c) Importance of drug interactions in drug therapy.
   (d) Loading and maintenance dose.
   (e) Therapeutic drug monaloug
(a) Define bioavailability. Discuss the objectives of bioavailability studies.

(b) Discuss briefly the methods used for measurement of bioavailability.

(c) Define the terms - Chemical equivalence, pharmaceutical equivalence, bioequivalence, and therapeutic equivalence.

(d) Give advantages and disadvantages of Latin square cross over design.

(e) Enumerate the factors affecting bioavailability of a drug from its dosage form.