Date
4/12/08
Time 2.30 to 4.30   Final year B. pharm sem VII
                     Biopharmaceutics and pharmacokinetics
pra -oct -80

Con. 5267-08.   RS-4733

(2 Hours)   [Total Marks : 35

N.B. : (1) Question No. **1** is **compulsory**.
          (2) Answer any **four** of the remaining **six** questions.

1. Discuss in detail passive diffusion and active transport in terms of the role in absorption.   7
   Give examples.

2. (a) Discuss the barriers to drug transport.   4
   (b) Write a note on binding of drugs to serum albumin.   3

3. (a) Write a note on Hepatic clearance and factors affecting hepatic clearance.   4
   (b) Write a note on The renal excretion of drugs.   3

4. Write a note on phase I and phase II drug metabolic reactions.   7

5. An intravenous bolus dose (25 mg) of a drug following one compartment kinetics gave an   7
   extrapoluted concentration at zero time [Co] of 36 µg/L and a 'K' of 0·045 hr^{-1}.
   Calculate–
       (a) The half life and the volume of distribution.
       (b) The total body clearance and AUC (zero to infinity)
       (c) The time required to eliminated 45% of the dose.
       (d) The amount of drug eliminated in 24 hours.
       (e) The concentration after 16 hours of the dose.

6. (a) Write a note on bioequivalence measurement.   4
   (b) Describe any one official dissolution testing method.   3

7. (a) Write a note on Method of residuals **Or** Rate method for urine analysis.   4
   (b) Describe the Noyes-Whitney equation and all its terms.   3

———————