14789

B. Pharmacy 6th Semester Examination

Pharmaceutics-VII
(Biopharmaceutics and Pharmacokinetics)

HBP-306

Time : 3 Hours   Max. Marks : 80

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

1. *Answer any ten:*   (10×2=20)

    (a)   Define transcytosis

    (b)   Danckswert's model

    (c)   Binding of drugs to globulin

    (d)   Biliary clearance

    (e)   Therapeutic range

    (f)   Curve fitting method

    (g)   Causes of non linearity

    (h)   Drug dissolution rate and bioavailability

    (i)   Solid dispersion

    (j)   Loading dose

    (k)   Crystal growth inhibitors

    (l)   Mixed order kinetics

2. *Answer any two of the following:* (2×8=16)

   (a) Name the physiological barriers for drug distribution. With the help of suitable diagram explain any two of them.

   (b) Name the pharmaceutical and patient related factors affecting the drug absorption. Explain any two of them.

   (c) What type of changes are observed normally in body constituents in several Physiological and pathologic conditions? How do they affect drug binding? Explain.

3. *Write a note on any two of the followings:* (2×8=16)

   (a) Mammillary model of pharmacokinetics and justify the usefulness of it over caternary model.

   (b) Wagner-Nelson method for estimation of K_a with their advantages.

   (c) Biological half life.

4. *Answer any two of the following:* (2×8=16)

   (a) Explain method of residuals for calculation of absorption rate constant from oral data.

   (b) Discuss the compartment model for 1 V infusion.

   (c) Explain Michaelis-Menton equation for non linear pharmacokinetics.

5. *Answer any two of the following:* (2×6=12)

   (a) Importance of bioavailability.

   (b) Importance of C_{max}, T_{max} and AUC.

   (c) Regulations for conducting bioequivalance studies.