

[Total No. of Questions - 5] [Total No. of Printed Pages - 2]
(2064)

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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

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[P.T.O.]

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 catenary 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 bioequivalence studies.