

B. Pharmacy 7th Semester Examination
Biopharmaceutics and Pharmacokinetics (NS)
BP-474

Time : 3 Hours

Max. Marks : 70

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

Note : Attempt any two questions from Section A, any eight questions from section B. Section C is compulsory.

SECTION - A

1. Write note on following:
 - (a) Non-linear pharmacokinetics
 - (b) Methods of Residuals (5+5=10)
2. Write note on following:
 - (a) Methods for Bioavailability enhancement
 - (b) Non-compartmental Analysis (5+5=10)
3. Write note on following:
 - (a) Theories of drug dissolution
 - (b) Physiologic barriers to drug distribution (5+5=10)

SECTION - B

4. Write a note on Plasma drug concentration time profile.
5. Explain Wagner- Nelson method for estimation of K_a .

6. Give a schematic representation of the process involved in drug therapeutics.
7. Explain binding of drugs to Human Serum Albumin.
8. Explain enterohepatic cycling of drugs.
9. Explain Sigma minus method for determination of K_E from Urinary excretion data.
10. Give direct methods for the measurement of Bioavailability.
11. Write a note on Pharmacokinetic Interaction with suitable examples.
12. How dose adjustment is done in patients without hepatic failure?
13. Discuss various pharmacokinetic and pharmacodynamic parameters to describe plasma level time curve. (5×8=40)

SECTION - C
(Compulsory Questions)

14. Write short note on:
 - (a) Absolute bioavailability and Relative bioavailability.
 - (b) Eutectic mixtures.
 - (c) Fick's first law.
 - (d) Volume of distribution (V_d).
 - (e) Clinical Pharmacokinetics. (5×2=10)