

School of Medical and Allied Sciences

Pharmacy
ETE - Jun 2023

Time : 3 Hours

Marks : 75

Sem VI - BP604T / BPHT6004

Biopharmaceutics and Pharmacokinetics Theory

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

1. What are the detection parameters of nonlinear Pharmacokinetics? K1 CO5 (2)
2. Compare the maintenance and loading dose. K2 CO4 (2)
3. Explain the terms absolute and relative bioavailability. K2 CO2 (2)
4. Define kinetics of multiple dosing. K1 CO4 (2)
5. Explain the term KE , $t_{1/2}$, AUC. K2 CO3 (2)
6. Define endocytosis. K1 CO1 (2)
7. Explain steady state concentration. K2 CO5 (2)
8. Define total clearance and its formula. K1 CO3 (2)
9. Explain BBB. K2 CO1 (2)
10. What are the objectives of bioavailability? K1 CO2 (2)
- 11) Develop the factors affecting drug distribution. K3 CO1 (5)

OR

- Develop the mechanisms of drug absorption through GIT. K3 CO1 (5)
12. Develop measurement of bioavailability of drug. K3 CO2 (5)
 13. Develop one compartment open model by Intravenous bolus for estimation of absorption rate constant. K3 CO3 (5)
 14. Contrast the importance of renal clearance. K4 CO2 (5)
 15. Simplify the significance of volume of distribution. K4 CO1 (5)
 - 16) Analyze the term SMT with its significance. K4 CO3 (5)

OR

- Categorize the pharmacokinetics parameters. K4 CO3 (5)
17. Estimate the role of therapeutic drug monitoring in clinical pharmacokinetics. K6 CO6 (5)
 18. Explain loo reigelman method for estimation of absorption rate constant. K5 CO4 (10)
 - 19) Construct michaelis-menton kinetics. K6 CO5 (10)

OR

- Elaborate factors causing non-linearity. K6 CO5 (10)