

QP Code: 624006

Reg. No.....

**Sixth Semester B. Pharm Degree Regular/Supplementary
Examinations May 2022
Biopharmaceutics and Pharmacokinetics
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw diagrams wherever necessary

Essays

(2x10=20)

1. Explain the kinetics of one compartment open model through extravascular administration.
2. Elaborate the physicochemical properties of the drug affecting drug absorption.

Short Notes

(7x5=35)

3. Describe the causes for non-linearity.
4. Describe the criteria for obtaining valid urinary excretion data.
5. Elaborate the sigma minus method to estimate K_E from urinary excretion data.
6. Describe diffusion layer model/film theory.
7. Elaborate the limitations of pH partition hypothesis.
8. Explain the factors affecting distribution of drugs.
9. Describe elimination half-life apparent volume of distribution and clearance in detail.

Answer Briefly

(10x2=20)

10. Glutathione conjugates are not detectable in urine. Why.
11. How are drugs classified under BCS (Biopharmaceutical Classification System).
12. What is the influence of K_a , K_E , on C_{max} , t_{max} and AUC.
13. Flip flop phenomenon.
14. Michaelis-Menten equation.
15. Explain the role of cytochrome p-450 enzyme in oxidative reactions.
16. What are the characteristic features of drug binding.
17. Draw Scatchard plot for protein drug binding.
18. Explain the role of tissue binding of drugs.
19. Define polymorphism and pseudo polymorphism.
