

QP Code: 624006

Reg. No.....

**Sixth Semester B. Pharm Degree Supplementary Examinations
May 2024**

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. Discuss the various physicochemical factors influencing drug absorption.
2. Define compartment. Discuss method of residuals/feathering method for deriving pharmacokinetic parameters following one compartment model extravascular administration.

Short Notes

(7x5=35)

3. Explain briefly phase II biotransformation reactions with examples
4. Write a note on tissue permeability of drugs.
5. Write a note on pathways of renal excretion of drugs.
6. Explain bioequivalence studies in brief.
7. Discuss about the compartment models. Write the applications of pharmacokinetic models.
8. Discuss the important pharmacokinetic parameters obtained from a plasma level time curve used for assessing the bioavailability of a drug
9. Explain two compartment open model.

Answer Briefly

(10x2=20)

10. What is Phagocytosis and Pinocytosis.
11. What is the effect of food on absorption of drugs.
12. Define apparent volume of drug distribution.
13. Write the formula to calculate hepatic extraction ratio
14. What is zero order reaction.
15. Draw the plasma concentration Vs time profile for a drug administered by constant rate intravenous infusion.
16. What are loading and maintenance doses.
17. What are therapeutic index and therapeutic range.
18. Name two parameters used in adjusting dosage regimen.
19. Give Michaelis-Menten equation. Explain the terms.
