

2012 Scheme

QP CODE: 314006

Reg. No:

Third Year B.Pharm Degree Supplementary Examinations January 2022

Pharmaceutics - IV

(Biopharmaceutics and Pharmacokinetics)

Time: 3 Hours

Total Marks: 100

- *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*
- *Write chemical structures/equations wherever necessary.*

Essays

(3x10=30)

1. Describe various methods of drug absorption through gastro intestinal tract.
2. What are various pharmaceutics (formulation) factors influencing GI drug absorption
3. Explain causes for non-linearity. What are the methods to determine K_m and V_{max} .

Short notes

(14x5=70)

4. Explain physiological barriers for drug distribution
5. What is enterohepatic circulation. Explain it with examples
6. Describe one official dissolution test apparatus with diagram
7. Explain kinetics of protein-drug binding
8. Describe pharmacokinetics of IV infusion with graph and assumptions (one compartment)
9. Explain the criteria for establishing valid urinary excretion data
10. Describe the pharmacokinetics of drug administration by IV bolus route for 1 compartment with 1st order kinetics.
11. Explain the different levels of IV/VC
12. Define extraction ratio and intrinsic clearance
13. Explain the factors influencing biotransformation of drugs
14. Differentiate zero order and first order absorptions with examples
15. Explain the mechanisms of renal clearance
16. How is area under plasma–time curve (AUC) measured
17. Compare the assumption of one and two compartment pharmacokinetic models
