

2012 Scheme

QP CODE: 314006

Reg. No:

Third Year B.Pharm Degree Supplementary Examinations January 2021

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 in detail the elements of bioavailability-bioequivalence study protocol
2. Explain the physiochemical properties of drugs influencing gastrointestinal drug absorption
3. Describe pharmacokinetics of drug administered as IV bolus dose assuming two compartment model with graph and assumptions.

Short notes

(14x5=70)

4. Differentiate passive and active drug absorption
5. Explain Wagner-Nelson method to determine absorption rate constant
6. Factors influencing protein binding of drugs
7. Describe phase-II reactions with examples
8. How is renal clearance determined
9. Explain pharmacokinetics of drug following IV infusion (one compartment model)
10. Describe rate of excretion method to determine K_e from urinary excretion data
11. Explain Michelis-Menten equation
12. Explain the in vitro – in vivo correlation
13. Explain any one method of dissolution testing.
14. Explain biopharmaceutical classification system for drugs
15. Physiological barriers for drug distribution
16. How is dose adjusted in renal impaired cases
17. What are the factors influencing biliary excretion of drugs
