

2010 Scheme

QP CODE: 304006

Reg. No:

Third Year B.Pharm Degree Supplementary Examinations January 2021

Pharmaceutics - V (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*
- *Draw table/diagrams/flow charts wherever necessary*

Essays

(3x10=30)

1. Describe the pharmacokinetics of drug exhibiting one compartment kinetics after IV-bolus dosing.
2. Discuss the factors influencing drug absorption in the body from GIT.
3. Mention the causes for non-linearity. State and explain Michaelis-Menten equation.

Short notes

(14x5=70)

4. Mention mechanism of drug absorption. Explain endocytosis and pinocytosis.
5. Biopharmaceutical classification system.
6. Kinetics of protein binding.
7. What are the two major rate limiting steps in distribution of drugs. Explain them.
8. How do you adjust dose in renal failure.
9. Explain the terms C_{max} , T_{max} , $t_{1/2}$ and AUC. Mention their importance in pharmacokinetic study.
10. *In vitro* – *in vivo* correlation.
11. Protocol for single dose bioequivalence study.
12. Explain various non-renal routes of elimination.
13. Glucuronidation in biotransformation
14. Determination of bioavailability.
15. Method of residuals
16. Official method for dissolution testing
17. Biliary clearance
