

QP CODE: 304006 (Old Scheme)

Reg. No:

**Third Year B.Pharm Degree Supplementary Examinations
January 2018**

**PHARMACEUTICS - V
(Biopharmaceutics and Pharmacokinetics)
(2010 Scheme)**

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Write equations wherever necessary.

Essay

(3x10=30)

1. Discuss the pharmacokinetics of a drug exhibiting one compartment kinetics after extravascular dosing from blood data.
2. What is meant by drug absorption. Explain in detail pharmaceutical factors affecting drug absorption with relevant examples.
3. What do you mean by bioavailability and bioequivalence. Describe the different methods for the determination of bioavailability.

Short notes

(14x5=70)

4. Mention mechanism of drug absorption. Explain facilitated transport.
5. Why is distribution of a drug is not uniform throughout the body. List the factors influencing drug distribution.
6. Define dosage regimen. Explain how dosage regimen is adjusted in renal impairment.
7. Mammillary compartment modelling.
8. Give the examples for zero order and first order rate processes.
9. Explain the significance of plasma protein binding.
10. Define clearance, total body clearance and organ clearance.
11. In-vitro dissolution testing models.
12. What is meant by MRT (mean residence time). How do you determine it.
13. Define biotransformation. Explain phase-II reactions with examples.
14. Mention the criteria for obtaining valid urinary excretion data.
15. Processes in renal excretion of drugs
16. Loading dose
17. Determination of Michaelis-Menton constant
