

# **2010 Scheme**

**QP CODE: 304006**

**Reg. No: .....**

## **Third Year B.Pharm Degree Supplementary Examinations December 2022**

### **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. Explain mechanisms of drug absorption
2. Explain the various factors affecting the drug distribution
3. Derive all parameters of plasma when the drug is given as i.v.bolus following a one-compartment open model

**Short notes**

**(14x5=70)**

4. Clearance ratio and extraction ratio
5. Zero-order absorption rate constant
6. Dissolution testing
7. Explain biotransformation
8. Two compartments open model drug administered by i.v. bolus
9. Extravascular administration
10. Nonlinear pharmacokinetics
11. Michaelis Menten's equation
12. Bioavailability measurements
13. Bioequivalence study
14. Protein binding
15. Concept of clearance
16. Compartment models
17. Biliary clearance

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