

# **2010 Scheme**

**QP CODE: 304006**

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

**Third Year B.Pharm Degree Supplementary Examinations May 2023**

## **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 pharmaceutical factors affecting drug absorption
2. Explain in detail the significance of protein binding
3. Derive all the pharmacokinetic parameters of plasma when the drug is given as i.v. bolus following a two compartment model

### **Short notes**

**(14x5=70)**

4. Elaborate on factors affecting renal excretion
5. Dosage adjustment following renal failure
6. Biological barriers affecting drug distribution
7. Biotransformation and its types
8. Biopharmaceutical classification system and its significance
9. Biliary excretion of drugs
10. First-order absorption rate constant
11. Measurement of A.U.C
12. Significance of plasma drug concentration
13. Volume of distribution
14. *In-vitro* and *in-vivo* correlation
15. Bioequivalence
16. Michaelis Menten's equation
17. Hepatic clearance

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