

**QP CODE: 212327**

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

**Second Semester M. Pharm Degree Regular/Supplementary Examinations  
October 2023**

**M.Pharm (Pharmaceutics)**

**Paper II: Advanced Bio-Pharmaceutics and Pharmacokinetics (MPH 202T)  
(Common for 2017 and 2019 Scheme)**

**Time: 3 Hours**

**Total Marks: 75**

- *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. Discuss the pharmacokinetics of one compartment model when drug is given Intravenously.
2. Explain the determination of pharmacokinetic parameters using urinary excretion data.
3. Describe two compartment model pharmacokinetics for oral absorption of drugs with suitable examples, graphs and pharmacokinetic equations.

**Short Notes**

**(9x5=45)**

4. Explain the cross over designs of bioequivalence studies.
5. Explain the causes of nonlinear pharmacokinetics. Explain with examples.
6. With suitable graphs explain how  $K_{max}$  and  $V_{max}$  can be estimated.
7. Discuss on any three factors affecting dissolution rate.
8. Explain compendial methods of dissolution study. Explain.
9. Explain the biosimilar drug products.
10. Discuss on biopharmaceutics classification system. Give examples. What is its importance.
11. Explain the drug interactions with suitable examples.
12. With suitable examples explain the clinical significance of bioequivalence.

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