

QP CODE: 212327

Reg. No:.....

**Second Semester M. Pharm Degree Regular/Supplementary Examinations
November 2025**

M.Pharm (Pharmaceutics)

**Paper II: Advanced Bio-Pharmaceutics and Pharmacokinetics (MPH 202T)
(Common for 2019 and 2024 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. Describe in detail about one compartment open model for intravenous infusion administration
2. Describe the biopharmaceutical considerations in drug product design
3. Explain pharmacokinetics and pharmacodynamics of biotechnology drugs

Short Notes

(9x5=45)

4. Discuss the influence of drug pK_a and GI pH on drug absorption
5. Explain the clinical significance of bioequivalence studies
6. Discuss the concept of non-linear pharmacokinetics
7. List out the applications of pharmacokinetics in oligonucleotides
8. Outline the factors affecting the dissolution rate of drug
9. Discuss the concept involved in effect of tissue-binding
10. Enlist different compartment models and add a note on multi-compartmental model
11. List out and explain different USP dissolution apparatus model
12. Discuss in brief about Gene therapy
