

**Second Semester M. Pharm Degree Supplementary Examinations
August 2021****M.Pharm (Pharmaceutics)****Paper II: Advanced Bio-Pharmaceutics and Pharmacokinetics (MPH 202T)****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. Explain one compartmental model with extra vascular route of administration along with various pharmacokinetic parameters
2. Explain the various mechanism of drug absorption
3. Explain bioequivalence. Discuss in detail various bioequivalence study designs

Short Notes**(9x5=45)**

4. Explain the objectives and considerations in bioavailability studies
5. Explain the different theories of dissolution process
6. Discuss pharmacodynamic drug interactions
7. Explain the significance of Michaelis -Menten equation in estimation of Km and V max
8. Describe pharmacokinetics and pharmacodynamics of vaccines(Immunotherapy)
9. pH-Partition theory of drug absorption
10. Discuss various factors to be considered in design of a drug product
11. Explain in vitro and in vivo correlation
12. Explain in brief one compartment model for IV Bolus and IV Infusion
