

**School of Medical and Allied Sciences****Master of Pharmacy in Pharmaceutics  
Semester End Examination - Jun 2024****Duration : 180 Minutes  
Max Marks : 75****Sem II - MPH202T - Advanced Biopharmaceutics and Pharmacokinetics***General Instructions**Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

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|-----------|--|-------|
| 1)        | Infer about the term lipophilic and hydrophilic drugs.   | K2(2) |
| 2)        | Outline on the term Clinical Pharmacokinetic.  | K2(2) |
| 3)        | Define the term absorption.  | K1(2) |
| 4)        | Infer about the term Symport and Antiport transport of drug.   | K2(2) |
| 5)        | Define the special concerns in bioavailability and bioequivalence studies?                                     | K1(2) |
| 6)        | Outline the compendial and alternative methods of in vitro drug dissolution.                                   | K2(2) |
| 7)        | Define the physicochemical factors of the drug affecting dissolution.  | K1(2) |
| 8)        | Outline on the different phases of drug administration.  | K2(2) |
| 9)        | Define the term bioavailability and elimination.   | K1(2) |
| 10)       | Define the experimental protocol and analysis of data for bioequivalence studies for conventional dosage form. | K1(2) |
| 11)       | Develop a note on active transport of drug molecules.  | K3(5) |
| <b>OR</b> |  |       |
|           | Develop a note on Polymorphism and Amorphism character of drug molecule.                                       | K3(5) |
| 12)       | Develop a note on application of Noyes-Whitney equation.   | K3(5) |
| 13)       | Analyze the pharmacokinetic of novel drug delivery systems using examples.                                     | K4(5) |
| 14)       | Develop a note on Partition coefficient and Handersen-Hasalblach equation..                                    | K3(5) |
| 15)       | Analyze the different classes of reaction kinetics and give detail on zero order reaction kinetic.             | K4(5) |
| 16)       | Examine through the flow chart, the methods for analysis of  | K4(5) |

pharmacokinetic data.

**OR**

Examine the term drug metabolizing enzymes.

K4(5)

17) Analyze the pharmacokinetic of biotechnological products.

K4(5)

18) Develop a note on drug interaction and its significance.

K6(10)

19) Justify the various methods for determining absorption of drugs in-vitro, in-situ and in-vivo and their their correlation with examples.

K5(10)

**OR**

Appraise the term Pharmacokinetic models and explain in detail any one of models.

K5(10)