



ADMISSION NUMBER

## School of Medical and Allied Sciences

**Bachelor of Pharmacy  
Semester End Examination - Aug 2024**

**Duration : 180 Minutes  
Max Marks : 75**

### Sem VI - BPHT6004 - 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*

- |           |  |        |
|-----------|--|--------|
| 1)        | Explain the formula of extraction ratio.   | K2(2)  |
| 2)        | Explain the equation of lineweaver-burk plot.  | K2(2)  |
| 3)        | List the definition of dose size.  | K1(2)  |
| 4)        | Explain the definition of Biotransformation.   | K2(2)  |
| 5)        | Define the central compartment model.  | K1(2)  |
| 6)        | Explain the term Dosage Regimen.   | K2(2)  |
| 7)        | List down the definition of clinical pharmacokinetics.   | K1(2)  |
| 8)        | Explain the objectives of bioavailability.   | K2(2)  |
| 9)        | List the definition of dose frequency.   | K1(2)  |
| 10)       | Define absorption.   | K1(2)  |
| 11)       | Define the term "elimination half-life" and explain its significance in pharmacokinetics.                    | K3(5)  |
| <b>OR</b> |  |        |
|           | Organize the following data into a table and calculate the apparent volume of distribution for each scenario | K3(5)  |
| 12)       | Build a brief note on factors based on fick's first law of diffusion.  | K3(5)  |
| 13)       | Distinguish the factors affecting G.I. absorption of drugs.  | K4(5)  |
| 14)       | Identify the elimination phase.  | K3(5)  |
| 15)       | Analyze the brief note on glomerular filtration of renal excretion of drug.                                  | K4(5)  |
| 16)       | Distinguish the factors affecting G.I. absorption of drugs.  | K4(5)  |
| <b>OR</b> |  |        |
|           | Compare active tubular secretion and tubular reabsorption of renal excretion of drug.                        | K4(5)  |
| 17)       | Simplify the equation of michaelis menter.   | K4(5)  |
| 18)       | Build up the loading and maintenance doses.  | K6(10) |

19) Explain the classification the physiological models.

K5(10)

**OR**

Explain the maintenance of drug with in therapeutic range.

K5(10)