

QP Code: 624006

Reg. No.....

**Sixth Semester B. Pharm Degree Supplementary Examinations  
December 2022**

**Biopharmaceutics and Pharmacokinetics**

**(2017 Scheme)**

**Time: 3 Hours**

**Max. 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 diagrams wherever necessary*

**Essays**

**(2x10=20)**

1. Explain the kinetics of one compartment open model extravascular administrations and explain the calculation of different kinetic parameters.
2. Explain the factors affecting protein-drug binding. Elaborate on the clinical significance of the same.

**Short Notes**

**(7x5=35)**

3. Classify mechanism of drug absorption from GIT. Explain vesicular transport.
4. State Michaelis Menton equation and explain its significance.
5. Methods to enhance bioavailability.
6. Describe the Wagner Nelson method for calculation of  $K_a$ .
7. Factors affecting renal excretion of drugs.
8. Elaborate on in-vitro invivo correlation.
9. Describe diffusion layer model and Noyes Whitney equation.

**Answer Briefly**

**(10x2=20)**

10. Apparent and real volume of distribution.
11. Scatchard plot in kinetics of protein binding.
12. Classification of drugs according to BCS system of classification.
13. What are the characteristic features of acetylation.
14. Explain the concept of clearance.
15. Explain bioequivalence studies.
16. Explain any one method to determine AUC.
17. Describe any two pharmacodynamics parameters.
18. Explain non-compartmental analysis.
19. Factors causing non-linearity in pharmacokinetics.

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