

**Third Year B.Pharm Degree Examinations July 2018**

**PHARMACEUTICS - IV**  
**(Biopharmaceutics and Pharmacokinetics)**  
**(2012 Scheme)**

**Time: 3 Hours****Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

**Essays****(3x10=30)**

1. Describe the factors affecting the drug distribution
2. Explain the mechanism, concept and determination of renal clearance
3. Explain the one compartment open model for extra vascular administration

**Short notes****(14x5=70)**

4. Enlist various physicochemical factors affecting drug absorption and explain the influence of gastrointestinal pH on drug absorption.
5. Enlist the mechanisms of drug absorption and explain passive diffusion.
6. Plasma protein binding
7. Explain biopharmaceutical classification system
8. Define bioavailability and explain the methods to measure bioavailability
9. The dose adjustment in patient with renal failure
10. Define biotransformation. Explain phase I reactions
11. Clinical significances of volume of distribution
12. Explain the hepatic clearance of drugs
13. Name the dissolution apparatus and brief note on USP II apparatus
14. Explain one compartment model for IV bolus administration
15. Explain the method for determining AUC
16. In vitro - In vivo correlation
17. Michaelis- Menten equation

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