Third Year B.Pharm Degree Supplementary Examinations
November 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. Define biotransformation and discuss phase I and phase II reactions with examples

2. Discuss in detail the methods of expressing and measuring bioavailability.

3. Discuss the modes of drug transport across biological barriers.

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

4. Any two physicochemical factors affecting drug absorption

5. Entero-hepatic circulation

6. Non-renal excretion of drugs

7. Michaelis-Menten equation

8. Plasma protein binding and its significance

9. Causes of non-linearity in pharmacokinetics

10. Pharmacokinetics of one compartmental model for drug given by extra vascular route

11. *In vitro-in vivo* correlation- significance

12. Loading dose

13. Method of determining elimination rate constant in continuous intravenous administration

14. Dosage adjustment in renal dysfunction

15. Hepatic clearance

16. Significance of C_{max} and AUC

17. Compartmental modeling

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