

**35024 : Biopharmaceutics and Pharmacokinetics : IV.T.3**

P. Pages : 1

Time : Three Hours



**AW - 2279**

Max. Marks : 80

- Notes : 1. All question carry equal marks.  
2. Answer **any eight** questions.

1. Define Excretion of drugs. Describe Renal Excretion Process. 10
2. Discuss in detail physicochemical factors affecting absorption of drugs. 10
3. Define bioavailability. Explain plasma level method for determination. 10
4. What is one compartment model. Derive various equations for estimation of various parameters like  $u_T$ ,  $v_d$ ,  $t_{1/2}$ ,  $k_E$ ,  $k_a$  for a drug administered by IV bolus route. 10
5. Write note on 
  - a) pH - partition hypothesis. 5
  - b) Ocusert 5
6.
  - a) Explain Non-linear pharmacokinetics. 5
  - b) Gastrointestinal physiology. 5
7. Discuss about chemical, pharmaceutical and therapeutic equivalency in detail. 10
8. What do you mean by Novel Drug Delivery systems. Classify it & explain Implantable systems. 10
9. Explain Plasma protein and tissue protein binding in detail. 10
10. Write short notes on **any two**. 10
  - a) Oxidation & reduction reactions.
  - b) Osmotic pumps
  - c) Urinary excretion data for determination of bioavailability.

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