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[LH 823] OCTOBER 2015 **Sub. Code: 3823**

PHARM. 'D' AND PHARM. 'D' (POST BACCALAUREATE) **DEGREE EXAMINATION**

(2009-2010 Regulation)

FOURTH YEAR

PAPER V – BIOPHARMACEUTICS AND PHARMACOKINETICS

O.P. Code: 383823

Time: Three Hours Maximum: 70 marks

Answer ALL questions

I. Elaborate on: $(4 \times 10 = 40)$

- 1. One compartment open IV bolus administration.
- 2. Define excretion and explain briefly about renal excretion of drugs.
- 3. Physiological barriers to distribution of drugs.
- 4. *In Vitro* drug dissolution testing models.

II. Write notes on: $(6 \times 5 = 30)$

- 1. Approaches for dosage regimen.
- Rankercom 2. Biopharmaceutical classification systems.
- 3. Line-weaver Burk plot.
- 4. Micro and hybrid constants.
- 5. Tissue localization of drugs.
- 6. A drug is administered at a dose of 500 mg IV bolus injection. The drug has elimination rate constant 0.231/hr, volume of distribution is 20 L by following one compartmental kinetics. If Area under the curve is 110 mg hr/L, then calculate mean residence time of the drug.
