[LC 823]   **APRIL 2013**   **Sub. Code: 3823**

DOCTOR OF PHARMACY (PHARM. D / POST BACCALAUREATE)
DEGREE EXAMINATION
FOURTH YEAR
PAPER V – BIOPHARMACEUTICS AND PHARMACOKINETICS

Q.P. Code: 383823

Time: Three Hours   **Maximum: 100 marks**

Answer All questions

I. Elaborate on: **(2 x 20 = 40)**

 1. Discuss the principles that governs the renal excretion of drugs?

 2. Discuss in detail the physiochemical factors affecting drug absorption?

II. Write notes on: **(10 x 6 = 60)**

 1. Write a note on drug – drug interactions in Gastro intestinal tract?

 2. Discuss the importance of salivary excretion of drugs?

 3. Derive the equation for one compartment open model intravenous infusion?

 4. Write the procedure involved in the determination of elimination rate constant using urinary excretion data?

 5. Derive the equation for two compartment open model extravascular administration?

 6. Write a note on Michaelis menten equation?

 7. Discuss in detail regulatory requirements for bioavailability study?

 8. The dose of amoxicillin capsule was 500 mg and the AUC was 50.9 mcghr/L.
    The dose of suspension was 500 mg and the AUC is 6 1.93 mcghr/L.
    Calculate the relative bioavailability of capsule to the oral suspension.

 9. An ophthalmic solution of mydriatic drug at 5 mg/ml exhibits first order degradation with rate of 0.0005 /day. How much drug will remain after 120 days?

10. Differentiate passive diffusion and active transport?

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