Fourth Year Pharm D Degree Examinations, August 2014

Biopharmaceutics & Pharmacokinetics

Time: 3 Hours   **Total Marks: 70**

- Answer all questions
- Draw diagrams wherever necessary

Essay: **(3x10=30)**

1. After administration of single i.v bolus dose of 100 mg of drug. The plasma concentration – time profile can be described by the following expression. C_p= 2.6 $e^{-(5.0t)}$+0.52 $e^{-(0.4t)}$, where t is in hours and C_p is in mg/L. What is the area under the curve and total body clearance of this drug.

2. Discuss in detail about nonlinear pharmacokinetics.

3. Describe one compartment open model Pharmacokinetics – Intravenous infusion

Short notes: **(8x5=40)**

4. Distribution of drugs to various organs

5. Repititive Intravenous injections – One Compartment Open Model

6. Importance of compartment model

7. Factors affecting elimination of drug

8. Gastric emptying time and motility

9. Clinical importance of drug bioavailability

10. Area under the first moment curve

11. Extraction ratio

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