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Roll No .....

PY-702 (GS)

B.Pharmacy VII Semester Examination, June 2020

Grading System (GS)

Pharmaceutics - IX

(Biopharmaceutics and Pharmacokinetics)

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.
ii) All questions carry equal marks.

1. Write loo Riegelman method for estimation of absorption rate constant (Ka) for drug administered through extravascular following two compartment open model.

2. a) How pharmacokinetic parameters are calculated from urinary data?
   b) What is pharmacokinetic drug interaction? Discuss its significance in brief.

3. Explain the concept of Volume of distribution (Vd). What is the effect of plasma protein binding and tissue protein binding of drug on its Vd?

4. What is the significance of the plasma level-time curve? How does the curve relate to the pharmacologic activity of a drug?

5. Describe Wagner-Nelson method for estimation of Absorption rate constant.

   OR

   What is steady state concentration? What is its importance in pharmacokinetics?

6. Considering that the drug follow one compartment model, solve the following:
   i) A drug has elimination half life of 12 hours. Calculate its elimination rate constant.
   ii) A drug has volume of distribution of 175 litres and its clearance is 0.43 L/min. Calculate its half life in units of hour.

7. a) Describe in detail I.V.I.V.C.
   b) Discuss the protein binding in detail and explain its role in Drug Distribution.

8. Write short notes on (Any two):
   a) Passage of drug across biological membranes
   b) Billiary and salivary excretion of drugs
   c) Drug metabolising enzymes
   d) Loding and Maintenance dose

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