

M.PHARM. DEGREE EXAMINATION
(PCI New regulations 2016)
SEMESTER-II
BRANCH-I – PHARMACEUTICS – MPH
PAPER II – ADVANCED BIOPHARMACEUTICS AND
PHARMACOKINETICS

Q.P. Code : 262936

Time : Three hours

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Explain in detail about Two compartment open model of IV Bolus and derive suitable equations to assess Pharmacokinetic parameters.
b) A new drug was given in a single intravenous dose of 200 mg to an 80-kg adult male patient. After 6 hours, the plasma drug concentration of drug was 1.5 mg/100 mL of plasma. Assuming that the apparent VD is 10% of body weight, compute the total amount of drug in the body fluids after 6 hours. What is the half-life of this drug?
2. a) Discuss about various rate limiting steps of drug absorption.
b) Explain in detail Biopharmaceutical considerations in drug product design.

II. Write notes on:

(7 x 5 = 35)

1. Describe various factors affecting dissolution rate.
2. Role of transporters in drug absorption.
3. Sigma-minus method.
4. Discuss dose accumulation in multiple dosage regimen.
5. Write short notes on method of assessing bioavailability.
6. Biopharmaceutics classification system.
7. Discuss about physiological pharmacokinetic model.
