



Printed Pages : 3

PH – 362

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 5058

Roll No.

--	--	--	--	--	--	--	--	--	--

B. Pharm.

**(SEM. VI) EXAMINATION, 2006-07
BIOPHARMACEUTICS & P'KINETICS
(PHARMACEUTICS - VIII)**

Time : 3 Hours]

[Total Marks : 80

- Note :*
- (1) Attempt all the questions.*
 - (2) All questions carry equal marks.*
 - (3) Be precise in your answer.*

- 1** (a) Define the terms **1×4=4**
- (i) Biopharmaceutics
 - (ii) Drug absorption
 - (iii) Drug distribution
 - (iv) Pharmaco kinetics
- (b) What are the various mechanisms of drug absorption? Discuss the mechanism of passive diffusion. **8**

OR

- (b) Discuss physicochemical factors affecting absorption of drug. **8**
- (c) Write a note on plasmaprotein binding of a drug. **4**

V-5058]

1

[Contd...

- 2** Attempt any **two** : **8×2**
- (a) What is plasma drug concentration time profile. Discuss the pharmacokinetic parameters which can be determined from such a profile.
 - (b) What are pharmacokinetic models? What is the importance of developing such models?
 - (c) Discuss zero order and first order absorption rate constants.
- 3** Answer any **two** : **8×2=16**
- (a) Discuss one compartment open model for i.v. infusion.
 - (b) Discuss the terms:
 - (i) Apparent vol. of distribution
 - (ii) Elimination rate const.
 - (c) Discuss the criteria for obtaining urinary excretion data. Discuss its advantages and disadvantages in assessment of pharmacokinetic parameters.
- 4** Write short notes on (any **four**) : **4×4=16**
- (a) Dosage regimen
 - (b) Adjustment of dose in renal diseases.
 - (c) Importance of drug interactions in drug therapy.
 - (d) Loading and maintenance dose.
 - (e) Therapeutic drug monitoring

5 Answer any **four** : **4×4=16**

- (a) Define bioavailability. Discuss the objectives of bioavailability studies.
 - (b) Discuss briefly the methods used for measurement of bioavailability.
 - (c) Define the terms - Chemical equivalence, pharmaceutical equivalence, bioequivalence, and therapeutic equivalence.
 - (d) Give advantages and disadvantages of Latin square cross over design.
 - (e) Enumerate the factors affecting bioavailability of a drug from its dosage form.
-