(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 psysicochemical factors affecting absorption of drug. **8**

(c) Write a note on plasmaprotein landing of a drug. **4**

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 legumen

(b) Adjustment of dose in renal diseases.

(c) Importance of drug interactions in drug therapy.

(d) Loading and maintenance dose.

(e) Therapeutic drug monaloug

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 equivalance.

(d) Give advantages and disadvantages of Latin square cross over design.

(e) Enumerate the factors affecting bioavailability of a drug from its dosage form.