

Total No. of Questions : 6]

SEAT No. :

P3180

[Total No. of Pages : 3

[5245]-706

Final Year B. Pharmacy (Semester - VII)

BIOPHARMACEUTICS AND PHARMACOKINETICS

(2013 Pattern)

Time : 3 Hours]

[Max. Marks :70

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate answer books.*
- 3) *Neat labeled diagrams must be drawn wherever necessary.*
- 4) *Figures to the right indicate full marks.*

SECTION - I

Q1) List various factors affecting absorption and explain in detail pharmaceutical factors affecting absorption of drug from GI tract. **[10]**

OR

List factors affecting biotransformation of drug. Discuss effect of physicochemical properties of drug on biotransformation of drug.

Q2) Answer the following (Any FIVE) : **[15]**

- a) Absorption of drug via transdermal route
- b) Effect of disease on absorption of drug from GI tract
- c) First pass effect on drug absorption
- d) Theories of dissolution of drug
- e) Effect of presence of food on drug absorption from GI tract
- f) BCS class II drugs
- g) Active transport of drug

P.T.O

Q3) Write short Note on (Any Two) :

[10]

- a) Phase II reactions in biotransformation of drug
- b) In-vitro-In-vivo correlation
- c) Michaelis Menten equation
- d) Non-renal clearance of drug

SECTION - II

Q4) What is Bioavailability and Bioequivalence and explain methods for assessing bioavailability study. **[10]**

OR

Explain ONE Compartmental open model for assessment of parameters by IV Infusion administration.

Q5) Answer the following (Any FIVE) :

[15]

- a) Add a note on methods for enhancing bioavailability
- b) What is Balanced Incomplete Block design
- c) Explain Single verses Multiple dose study
- d) What are the advantages of urinary data over plasma data
- e) What is method of residual
- f) What is non compartmental analysis
- g) Define and explain in short AUC

Q6) Write short Note on (Any TWO) :

[10]

- a) Biowaivers
- b) Sigma minus method
- c) Two compartmental analysis
- d) Wash out period

