

Total No. of Questions : 6]

SEAT No. :

P2008

[5145]-706

[Total No. of Pages : 2

Final Year B.Pharmacy

**4.7.6 : BIOPHARMACEUTICS AND PHARMACOKINETICS
(2013 Pattern) (Semester - VII)**

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. Explain patient related factors in detail. **[10]**

OR

Describe nature of Blood-Brain barrier and discuss properties of drug required to cross blood brain barrier.

Q2) Answer the following (Any 5): **[15]**

- a) Influence of polymorphs on absorption.
- b) Effect of particle size of drug on absorption.
- c) Ideal properties of dissolution test apparatus.
- d) Effect of different salts on absorption of drug.
- e) Phase I reactions involved in biotransformation of drug molecule.
- f) Causes of non-linear pharmacokinetics.
- g) Absorption of drug after intramuscular administration.

Q3) Write short note on (Any 2) **[10]**

- a) Apparent volume of distribution.
- b) Biopharmaceutics classification system.
- c) Factors affecting renal clearance.
- d) Influence of drug pKa and GI pH on drug absorption.

P.T.O.

SECTION - II

Q4) Define Bioavailability and Bioequivalence and explain study parameters for conducting bioequivalence study. **[10]**

OR

Explain One Compartmental open model for assessment of parameters by IV Bolus administration.

Q5) Answer the following (Any 5) **[15]**

- a) How bioavailability determined on the basis of plasma data.
- b) Discuss factors affecting bioavailability of drugs.
- c) What is significance of compartmental analysis.
- d) What is non compartmental analysis.
- e) Explain plasma concentration time profile.
- f) What is Two compartmental analysis.
- g) What are the advantages of urinary data over plasma data.

Q6) Write short note on (Any 2) **[10]**

- a) Wagner Nelson Method.
- b) Single verses Multiple does study.
- c) Absolute and Relative Bioavailability.
- d) Biowaivers.

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