



DAP-M202117

Seat No. _____

Fourth Year D. Pharm Examination

May - 2022

Biopharmaceutics & Pharmacokinetics

Time : 3 Hours]

[Total Marks : 70

1 Answer the following questions : **20**

- (1) Define: Biopharmaceutics & Pharmacokinetics
- (2) Write modified Noyes. Whitney equation.
- (3) Comment: Benzodiazepines like diazepam, oxazepam and nitrazepam are having less rate of absorption.
- (4) Define: Pharmacokinetics. Enlist Pharmacodynamics Parameters.
- (5) Classify Methods for analysis of Pharmacokinetic data.
- (6) Comment: Phase II reactions are better known as detoxification reactions.
- (7) What is Non compartmental Analysis?
- (8) Enlist application of Non compartment Analysis.
- (9) What is pharmaceutical equivalence?
- (10) What is the difference between relative and absolute bioavailability?

2 Answer the following questions : (ANY TWO) **20**

- (1) Enlist factors affecting drug absorption. Write note on factors - dosage form characteristics and pharmaceutical ingredients.
- (2) Explain about One compartment open model for Intravenous Injection (Bolus) with all parameters.
- (3) Write Michaelis Menten equation including estimation of K_m & V_{max} .

3 Answer the following questions : (ANY SIX)

30

- (1) Enlist mechanism of drug absorption, give a detailed note on passive diffusion.
 - (2) Define: Dissolution. Explain diffusion layer model.
 - (3) Explain about Two compartment open model for Extravascular admission.
 - (4) Enlist physiological barriers to drug distribution. Explain with figure placental barrier.
 - (5) What are chemical factors affect drug metabolism?
 - (6) Explain different methods for enhancement of bioavailability
 - (7) Write a note on renal excretion of drug.
 - (8) Describe the Loading dose.
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