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Total Number of Pages : 01

B.Pharm
15PH701

7th Semester Regular Examination 2018-19
BIOPHARMACEUTICS AND PHARMACOKINETICS

BRANCH : B.Pharma

Time : 3 Hours

Max Marks : 100

Q Code : E003

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part- I

Q1 Short Answer Type Questions (Answer All-10) (2×10)

- a) What do you mean by bioequivalence?
- b) What is pharmacodynamics?
- c) What is passive diffusion?
- d) Give one example of acetylation reaction.
- e) What are the non-renal routes of drug excretion?
- f) What is active tubular secretion?
- g) What are the different routes of extra-vascular administration?
- h) What are the different types of dissolution testing apparatus?
- i) What is volume of distribution?
- j) What do you mean by clearance?

Part- II

Q2 Focused-Short Answer Type Questions- (Answer Any EIGHT out of TWELVE) (6x8)

- a) What are the three major routes of drug administration?
- b) Explain Fick's first law of diffusion.
- c) Describe briefly carrier-mediated transport.
- d) Describe Noyes-Whitney equation.
- e) How polymorphism affects bioavailability?
- f) What is pH partition hypothesis?
- g) Describe shortly different physiological barriers to drug distribution.
- h) What are the different sites of drug metabolism in the body? Why is liver considered as a major site for this purpose?
- i) Classify the chemical pathways of drug metabolism.
- j) What are the factors affecting the process of hemodialysis?
- k) Why first-order processes follow linear kinetics?
- l) What do you mean by total body clearance?

Part-III

Long Answer Type Questions (Answer Any TWO out of FOUR)

- Q3** Describe different theories of drug dissolution. (16)
- Q4** What are the different dosage form factors affecting drug absorption? (16)
- Q5** What are the different factors affecting pharmacodynamics? (16)
- Q6** What are the different approaches to enhance bioavailability from oral dosage forms? (16)