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Total No. of Pages : 02

Total No. of Questions : 10

**B.Pharma (2012 to 2016) (Sem.-5)**  
**PHARMACEUTICS-VII**  
**(Biopharmaceutics & Pharmacokinetics)**  
Subject Code : BPHM-505  
M.Code : 70431

Time : 3 Hrs.

Max. Marks : 80

**INSTRUCTION TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt any THREE questions.

**SECTION-A****1. Answer briefly :**

- a. Significance of plasma drug concentration time curve.
- b. What is a compartment model?
- c. Enlist factors affecting gastric emptying of drug.
- d. Enlist **any two** possible mechanisms of enzyme induction and enzyme inhibition.
- e. Significance of bioavailability studies.
- f. Give significance of tissue binding of drug.
- g. Flip-flop phenomenon.
- h. What is non linear pharmacokinetics?
- i. Hepatic clearance.
- j. Active transport systems.

- k. Define Volume of distribution.
- l. What are the various sites of drug metabolism in the body?
- m. Define Passive diffusion.
- n. What do understand by mean residence time?
- o. Write about characteristics of active transport?

### SECTION-B

- 2. Write a note on applications and limitations of compartment models.
- 3. Write a short note on urinary excretion studies.
- 4. Explain Zero order and first order absorption models.
- 5. Explain Apparent volume of distribution and distribution co-efficient.
- 6. Write a note on clearance. What is its unit?

### SECTION-C

- 7. Write short notes on :
  - a. Significance of plasma drug concentration measurement.
  - b. Lag time
- 8. Discuss the assumptions, limitations and significance of pH- partition hypothesis.
- 9. Describe various pharmacokinetic parameters and study designs used in BA/BE studies.
- 10. Explain about Wagner-Nelson method and Loo-Reigelman method.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**