Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (2011 to 2016) (Sem.–5)

PHARMACEUTICS-VII

(Biopharmaceutics & Pharmacokinetics)

Subject Code : BPHM-505

Paper ID : [D1164]

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 has to attempt any FOUR questions.**
3. **SECTION-C contains FOUR questions carrying TEN marks each and students has to attempt any THREE questions.**

SECTION-A

1. Answer briefly :

i. Define Relative Bioavailability.

ii. Define dosage regimen.

iii. Differentiate between drug excretion and elimination.

iv. What is meant by wash out period?

v. Define systemic bioavailability.

vi. How is bioavailability related to volume of distribution?

vii. Define bioequivalence.

viii. Write the equation for first order drug elimination kinetics.

ix. What is MRT and how is it calculated?

x. Give examples of plasma proteins that contribute to drug binding.

xi. At steady state what is relation between Ka and Ke?

xii. What is first pass effect?

xiii. Define Tmax.

xiv. Write Handerson-Hasselbach equation.

xv. Define facilitated transport.

SECTION-B

2. What are Non-compartment models?

3. What is meant by biopharmaceutics? Enumerate the factors that need to be considered during biopharmaceutical studies.

4. What are various mechanisms for drug transport in body?

5. What are reasons for instability of drugs in GIT?

6. Discuss briefly the methods used for evaluating *in vitro-in vivo* correlation.

SECTION-C

7. Discuss method of residual for calculation of absorption rate constant.

8. Describe the method of calculating various pharmacokinetic parameters from urinary excretion data after oral administration of a drug (one compartment model).

9. Discuss various factors affecting the volume of distribution of drugs. Also explain its role in the pharmacokinetics of a drug.

10. Elaborate upon the significance of plasma drug concentration measurement.