PAPER ID-410725

Subject Code: RPH734

Roll No: | | | | | | | | | | | | | |

B.PHARM

(SEM VII) THEORY EXAMINATION 2021-22

PHARMACEUTICS-IX (BIOPHARMACEUTICS & PHARMACOKINETICS)

Time: 3 Hours ***Total Marks: 70***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 7 = 14

a.	Define distribution coefficient.
b.	What is the significance of plasma protein binding?
c.	Elaborate the term IVIVC.
d.	What is ADME?
e.	How will you define clinical pharmacokinetics?
f.	Classify different types of pharmacokinetic models.
g.	What is bioavailability?

SECTION B

2. Attempt any *three* of the following: 7 x 3 = 21

a.	What are multicompartment models? Give its preliminary information.
b.	Discuss the role of biopharmaceutics and pharmacokinetics in formulation development.
c.	Describe the significance of plasma drug concentration measurement.
d.	How will you review regulatory requirements for conduction of bioequivalence studies?
e.	Write a detailed note on scope of clinical pharmacokinetics.

SECTION C

3. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Discuss pharmaceutical factors influencing absorption.
(b)	What is volume of distribution? Emphasize its significance.

4. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Derive the absorption rate constant using Wagner-Nelson method.
(b)	Compare compartment models and non-compartment models. Discuss their scope.

5. Attempt any *one* part of the following: 7 x 1 = 7

(a)	What are the advantages of IV infusion? How is steady state achieved?
(b)	Calculate the various pharmacokinetic parameters after drug administration by intra venous bolus injection.

6. Attempt any *one* part of the following: 7 x 1 = 7

(a)	What is creatinine clearance? Discuss its significance.
(b)	How will you adjust dose in case of patients with renal disease?

7. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Write a detailed note on the significance of IVIVC correlation.
(b)	How will you carry out bioavailability studies? Discuss in detail.