Printed Pages: 01 **Sub Code: BOP-472**
Paper Id: 150712 **Roll No.** | | | | | | | | | | |

B PHARM
(SEM-VII) THEORY EXAMINATION 2018-19
PHARMACEUTICS-VIII (BIOPHARMACEUTICS & PHARMACOKINETICS)

Time: 3 Hours ***Total Marks: 100***

Note: 1. Attempt all Sections.

SECTION A

1. Attempt *all* questions in brief. 2 x 10 = 20

a. Define active transport
b. When insulin is given orally, its bioavailability is zero. Explain.
c. Discuss Cmax and Tmax.
d. How you can find AUC in two compartment IV bolus model?
e. Write down the role of pharmacokinetics in formulation development.
f. Name any two pharmacokinetic models.
g. Differentiate between volume of distribution and apparent volume of distribution.
h. Why acidic drug absorbed from the stomach?
i. The absorption of tetracycline is markedly reduced when antacids are administered simultaneously. Explain
j. Define bioavailability.

SECTION B

2. Attempt any *three* of the following: 10 x 3 = 30

a. Discuss various factors affecting absorption of drug.
b. Write a note on sigma minus method for calculating Elimination rate constant.
c. Discuss Non compartment model analysis.
d. Discuss Guisti Hayton method.
e. Define bio-equivalence. List the various methods involved in the determination of bio-equivalence.

SECTION C

3. Attempt any *one* part of the following: 10 x 1 = 10

(a) Enumerate and describe various numerical and graphical methods use for determination of pharmacokinetics parameters.
(b) Explain the significance of protein/tissue binding of drugs.

4. Attempt any *one* part of the following: 10 x 1 = 10

(a) Write a note on determination of absorption rate constant by Wagner Nelson method.
(b) What is the significance of plasma drug concentration in calculation of various pharmacokinetic parameters?

5. Attempt any *one* part of the following: 10 x 1 = 10

(a) Explain briefly two compartmental open model IV bolus.
(b) Describe the method of residuals in the determination of absorption rate constant in two compartment open model IV administration.

6. Attempt any *one* part of the following: 10 x 1 = 10

(a) Discuss various methods of dosage adjustment in renal failure patients.
(b) Discuss the concept involved in clearance.

7. Attempt any *one* part of the following: 10 x 1 = 10

(a) Define clinical trials. Discuss in detail various principles of clinical trials.
(b) Explain in-vivo, in- vitro correlation (IVIVC).