Subject Code: BP604T

PAPER ID-311141

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

BPHARM
(SEM VI) THEORY EXAMINATION 2023-24
BIOPHARMACEUTICS AND PHARMACOKINETICS – THEORY

TIME: 3 HRS **M.MARKS: 75**

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

SECTION A

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

a.	State the advantages and disadvantages of non per oral routes
b.	Differentiate between passive transport and active transport
c.	Define bioequivalence.
d.	Distinguish between absolute and relative bioavailability
e.	Define pharmacokinetics
f.	Explain steady-state drug levels.
g.	Give examples of drugs following nonlinear pharmacokinetics.
h.	List the factors causing nonlinearity.
i.	Correlate the effect of dosing interval on steady state.
j.	State the methods used to increase the aqueous solubility of BCS class II drugs.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Explain in detail about factors influencing drug absorption through GIT.
b.	State nonlinear pharmacokinetics. Describe the Michaelis-Menton method of estimating pharmacokinetic parameters.
c.	Enumerate the objective of bioavailability and write notes on in-vitro drug dissolution models.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Enumerate the factors affecting protein binding and the kinetics of protein binding.
b.	Describe in detail factors affecting the renal excretion of drugs
c.	Write about the various phases of biotransformation.
d.	Discuss various pharmacokinetics parameters and their significance.
e.	Explain one compartment open model for Intravenous Injection (Bolus)
f.	Illustrate the calculation of loading and maintenance doses and their significance.
g.	Explain various mechanisms of drug absorption through GIT