PAPER ID-311294

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

BPHARM

(SEM VI) THEORY EXAMINATION 2024-25

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.	What is gastric emptying time.
b.	What is AUC?
c.	What is Fick's law of diffusion?
d.	Give example of drug binds to alpha I acid glycoproteins.
e.	Define volume of distribution.
f.	Define pharmaceutical equivalence
g.	What is compartment model?
h.	Write down the Henderson Hasselbalch equation.
i.	Differentiate between active and passive transport.
j.	Draw plasma level time curve.

SECTION B

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

a.	Discuss passive active transport and facilitated diffusion with examples.
b.	Write down the various factors which enhance the bioavailability of drug.
c.	Enumerate the factors affecting drug absorption from GIT. Discuss the effect of gastric emptying, drug pKa and GI pH on drug absorption.

SECTION C

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

a.	How will you adjust dose in patient with renal failure?
b.	Discuss IVIVC studies. Explain various levels in detail.
c.	Illustrate Wagner nelson method using relevant graphs and equations.
d.	Describe the kinetic of drug protein binding using graph and mathematical equation
e.	What is nonlinear pharmacokinetics. Define Michaelis Menten equation
f.	What are the factors affecting distribution of drug?
g.	Discuss plasma protein binding and its significance.