Year and Program 2023-24	School of Pharmaceutical Sciences	Department: Pharmacy
Course Code: BP604T	Course Title: Biopharmaceutics & Pharmacokinetics	Semester– VI
Date: 29 MAY 2024 Day: Wed Time: 10:30AM To 01.30PM	Examination: End Semester	Max Marks:75

Instructions: 1) All questions are compulsory.
2) Draw a neat labeled diagram if necessary.

		Marks	Bloom's Level	CO
Q.1	**Objective Type Questions (10X2)**	**20**		
a)	Define a) Biopharmaceutics b) Pharmacodynamics	02		3
b)	How drugs are classified according to BCS?	02		2
c)	Write briefly about vesicular transport.	02		1
d)	Enlist factors affecting Protein – Binding.	02		1
e)	Define Absolute and Relative Bioavailability.	02		2
f)	Define Bioavailability and its objectives.	02		2
g)	Give the significance of bioequivalence Study.	02		2
h)	Give Michaelis Menton equation & explain the terms.	02		5
i)	Give the schematic representation of Two-compartment open model IV infusion drug administration.	02		4
j)	Define a) Peak Plasma Concentration (Cmax) b) Minimum Effective Concentration (MEC)	02		3
Q.2	**Long Answers (Answer 2 out of 3)**	**20**		
a)	Describe One compartment open model for IV Infusion drug administration.	10		4
b)	Describe in detail Physiochemical properties of drug affecting drug absorption.	10		1
c)	Discuss in detail bioavailability enhancement methods of poorly soluble drugs.	10		2

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Q3	**Short Answers (Answer 7 out of 9)**	**35**	
a)	Discuss Blood-brain barrier.	05	1
b)	Describe Fick's first law of diffusion.	05	1
c)	Explain causes of non lincar pharmacokinetics.	05	5
d)	Discuss Non-renal routes of excretion on drugs.	05	2
e)	Enumerate applications of Pharmacokinetics models.	05	3
f)	Write note on Binding of Drugs to Human Serum Albumin.	05	1
g)	Explain in oxidative reactions and redox cycle of drug metabolism.	05	2
h)	Describe Two compartment open model for IV bolus drug administration.	05	4
i)	What is Bioequivalence? Add note on Latin square design.	05	2

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