

BACHELOR OF PHARMACY (B. PHARM.) (CBCS - 2015 COURSE)
Final Year B. Pharm. Sem-VII :SUMMER- 2022
SUBJECT : BIOPHARMACEUTICS & PHARMACOKINETICS (T UE)

Day : Friday
Date : 15-07-2022

S-13722-2022

Time : 02:00 PM-05:00 PM
Max. Marks : 60

N.B.

- 1) Q.No. 1 and 5 are **COMPULSORY**. Out of the remaining attempt **ANY TWO** questions from **each** section.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION – I

- Q.1** Answer the following : (**ANY FIVE**) **(10)**
- a) What is entero hepatic circulation?
 - b) Explain enzyme inhibition with its significance.
 - c) Differentiate between absolute surface area and effective surface area.
 - d) What are the clinical significance of drug-drug interactions with respect to displacement from protein binding site?
 - e) Enlist the specialized barriers to distribution of drug.
 - f) Give dose adjustment in case of renal failure patients.
- Q.2** Discuss in detail about factors affecting drug absorption. **(10)**
- Q.3** a) Explain the significance of protein drug binding. **(05)**
b) Explain in detail about phase I and phase II drug metabolism. **(05)**
- Q.4** Write short notes on **ANY TWO** of the following : **(10)**
- a) Role of polymorphism and salt form of drug on drug absorption.
 - b) Significance of drug interaction
 - c) Chemical factors affecting biotransformation

SECTION – II

- Q.5** Answer the following : (**ANY FIVE**) **(10)**
- a) Define absolute and relative bioavailability.
 - b) Highlight the disadvantages of compartment modeling.
 - c) What is zero order kinetics?
 - d) Define MRT and give its equation.
 - e) Explain the pharmacodynamics parameters.
 - f) Define pharmaceutical equivalence and bioequivalence.
- Q.6** Explain in detail Wanger-Nelson method and Sigma minus method. **(10)**
- Q.7** a) Differentiate between compartment modeling and physiological modeling. **(05)**
b) Discuss design of protocols and statistical treatment in bioequivalence testing. **(05)**
- Q.8** Write short notes on **ANY TWO** of the following : **(10)**
- a) Non-compartmental pharmacokinetics.
 - b) Pharmacodynamics methods to determine BA.
 - c) IVIVC (Invitro Invivo Correlation)
