

Fifth Year Pharm. D.: Summer-2019
SUBJECT : CLINICAL PHARMACOKINETICS & PHARMACOTHERAPEUTIC
DRUG MONITORING

Day : Friday Time : 10:00 AM TO 1:00 P.M.
Date : 12-04-2019. S-2019-4526 Max. Marks : 70

N.B.:

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

SECTION – I

- Q.1 A)** Answer **ANY FOUR** of the following: [08]
- i) Name the mutant alleles of CYP2D6.
 - ii) Enlist the factors affecting drug distribution.
 - iii) What do you mean by drug absorption in clinical pharmacokinetics?
 - iv) Define the following terms: dialysis clearance and clinical dialyzability of a drug.
 - v) What is therapeutic index? Explain with one example.
- B)** Expand the term AUC. Give the significance of AUC in clinical pharmacokinetics. [03]
- Q.2** Enlist the necessity of Therapeutic Drug Monitoring (TDM). Describe the necessities of TDM with suitable examples. [12]
- Q.3 a)** Explain about inherited variation in pharmacokinetics for oxidation, s-methylation and conjugation. [07]
- b)** What is inherited variability in pharmacodynamics? Give three examples and explain the effect of any one on clinical outcome. [05]
- Q.4** Write short notes on **ANY THREE** of the following: [12]
- a) Multifaceted drug interactions
 - b) TDM of Lithium
 - c) Loading dose and maintenance dose
 - d) Drug dosing in elderly patients

SECTION – II

- Q.5 A)** Answer **ANY FOUR** of the following: [08]
- i) Define pharmacogenetics.
 - ii) Explain the term polymorphism.
 - iii) State at least two importance of loading dose in management of a disease.
 - iv) What do you mean by enzyme inducers? Mention any two enzyme inducer.
 - v) State two limitations of MDRD equation for estimating glomerular filtration rate.
- B)** Expand IBW and state the equation. Calculate the IBW of a man who is 64 inches tall and weighs 70 kg. [03]
- Q.6** Classify the pharmacokinetics drug interactions with examples and effect. [12]
- Q.7 a)** Describe the one compartment model used in clinical pharmacokinetics study. [07]
- b)** Discuss the clinical pharmacokinetics and adverse drug reactions of digoxin. [05]
- Q.8** Write short notes on **ANY THREE** of the following: [12]
- a) Dosage adjustment in obese patients
 - b) Drug clearance
 - c) Prodrug and patterns of biotransformation
 - d) TDM of theophylline

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