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M.Pharmacy (Pharmacy Practice) (Sem.-2)

**CLINICAL PHARMACOKINETICS AND
THERAPEUTIC DRUG MONITORING**

Subject Code : MPP-203T

M.Code : 79832

Date of Examination : 08-07-22

Time : 3 Hrs.

Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. ATTEMPT 5 OUT OF 6 QUESTIONS. EACH QUESTION CARRIES 15 MARKS.

1. a. Describe the protocol for therapeutic drug monitoring and also the pharmacokinetic and pharmacodynamic basis of therapeutic drug monitoring of carbamazepine.
b. Describe various methods for calculating Area Under Curve (AUC) to determine bioavailability.
2. a. Describe pharmacokinetic basis of drug-drug interactions with suitable examples.
b. Draw and explain Siersback-Nielson Nomogram for finding renal clearance.
3. a. Describe the factors affecting size of loading dose.
b. Describe the principle of superposition.
4. a. Describe the significance and methods of dose adjustment in elderly subjects.
b. Describe the pharmacokinetic-pharmacodynamic correlation in drug therapy.
5. a. Briefly describe about pharmacometrics software.
b. Briefly explain the implementation of Bayesian Approach using Non-Linear Mixed Effect Modelling (NONMEM) computer software.
6. a. Describe various models of hepatic clearance.
b. Describe methods for population Pharmacokinetic data analysis.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.