

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM**  
**(Deemed to be University)**

**Pharm.D (POST BACCALAUREATE) DEGREE EXAMINATION**  
**August 2018**  
**Fifth Year**

**CLINICAL PHARMACOKINETICS AND**  
**PHARMACOTHERAPEUTIC DRUG MONITORING**

Time: Three hours

Maximum: 70 marks

- I. Write essays on any **TWO** questions: (2 x 15 = 30)
1. Define pharmacogenetics and explain the consequence of genetic polymorphism of drug metabolizing enzyme with suitable examples
  2. What is inter- individual variability in drug response? Discuss the various factors causing such inter- individual variability
  3. Write in detail about the altered pharmacokinetics in renal failure. How the dosage adjustment is done in case of renal failure?
- II. Write short answers on any **SIX** questions: (6 x 5 = 30)
4. Write short notes on pharmacokinetic drug interactions with suitable examples for each type
  5. Define the term 'Therapeutic drug monitoring (TDM). Write the various reasons for which TDM is done for drugs
  6. Write the various methods of conversion of intravenous dose to oral dose with suitable examples
  7. Write about Bayesian theory and its applications
  8. Write the various methods of extracorporeal removal of drugs
  9. How to determine the dose and dosing interval of a drug administered through intravenous route of administration?
  10. How is dosage adjustment done in liver failure condition?
  11. Write about biliary excretion of drugs and the consequences of its inhibition
- III. Write short notes on any **FIVE** question: (5 x 2 = 10)
12. Write one example for induction of metabolism of one drug by another drug
  13. What is auto- inhibition? Give one example
  14. Write the conditions in which TDM is not required for drugs
  15. What is pharmacokinetic- pharmacodynamic correlation?
  16. What is nomogram?
  17. Write any two drugs in each class of cardiovascular diseases and organ transplantations which require TDM

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