

**Code No: PD503**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**Pharm.D V Year Supplementary Examinations, October/November - 2019**  
**CLINICAL PHARMACOKINETICS AND PHARMACOTHERAPEUTIC DRUG**  
**MONITORING**

**Time: 3hours****Max.Marks:70**

**Answer any five questions**  
**All questions carry equal marks**

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- 1.a) What is clinical pharmacokinetics? Write its applications.  
b) How will you determine frequency of drug administration? [7+7]
- 2.a) Why are the drugs administered in multiple doses? Explain with examples.  
b) Explain the dose adjustments in obese patients? Discuss in brief the difficulties faced. [7+7]
- 3.a) Explain the pharmacokinetic drug interactions with suitable examples and mechanisms.  
b) With suitable examples explain inhibition and induction of drug metabolism and their significance in drug therapy. [7+7]
- 4.a) Explain the term therapeutic drug monitoring? Describe different ways by which TDM is achieved in individualized patients.  
b) Discuss in brief TDM in cardiovascular diseases with relevant reasons. [7+7]
- 5.a) Explain the methods of adjusting the dose and dosage regimen in patients with renal disease.  
b) Explain the difficulties in dose adjustment in patients with hepatic disease. [7+7]
- 6.a) Discuss the importance of population pharmacokinetics with suitable examples?  
b) Write in brief about Bayesian theory and its applications. [7+7]
- 7.a) What is pharmacogenetics? Discuss about genetic polymorphism in drug metabolism.  
b) Write the implications of pharmacogenetics in pharmacokinetics of drugs. [7+7]
8. Write note on the following:  
a) Inhibition of biliary excretion  
b) Extracorporeal removal of drugs. [7+7]

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