



## Rajiv Gandhi University of Health Sciences, Karnataka

V Year Pharm-D (II Year Pharm D Post Baccalaureate) Degree Examination – NOV 2016

Time: Three Hours

Max. Marks: 70 Marks

### CLINICAL PHARMACOKINETICS & THERAPEUTIC DRUG MONITORING (RS)

**Q.P. CODE: 2876**

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

#### LONG ESSAYS (Answer any two)

**2 x 10 = 20 Marks**

1. Explain the pharmacokinetics of drugs in obese patients and describe the dosage adjustment in these patients with necessary examples.
2. Define pharmacokinetic drug interactions. Explain the pharmacokinetic interactions of drugs with examples.
3. List out the indications, necessity and process involved in TDM process. Write a note on TDM of Digoxin

#### SHORT ESSAYS (Answer any six)

**6 x 5 = 30 Marks**

4. Define the role of nomograms and tabulations in designing dosage regimen?
5. Define polymorphism? Describe the genetic polymorphism in CYP 2D6 and CYP 2C9 enzymes
6. Discuss about the dosage adjustment in patients with liver failure.
7. Write a note on biliary excretion of drugs.
8. Describe the TDM of carbamazepine
9. Write a note on role of pharmacokineticist in TDM processes
10. Calculate the creatinine clearance for 30 year old female patient with serum creatinine value of 0.8mg/dl. The patient is 5ft 1 inch height and weighs 69kg
11. Mention the pharmacokinetic differences between geriatric and pediatric patients

#### SHORT ANSWERS

**10 x 2 = 20 Marks**

12. Write the significance of pharmacokinetic and pharmacodynamic correlation in drug therapy
13. What is clinical pharmacokinetics and explain its importance
14. Define hemodialysis. Give its significance.
15. Define allele and variant allele
16. Illustrate four pharmacokinetic interactions affecting the metabolism of drugs
17. Enumerate the mechanism of drug interactions between clopidogrel and aspirin
18. What is creatinine clearance? Give the formula with normal value.
19. Give the indications which necessitate TDM for lithium.
20. Mention hepatic biomarkers and write its normal values.
21. Define GFR. Write the formula to calculate GFR with normal value.

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