

Rajiv Gandhi University of Health Sciences, Karnataka

V Year Pharma-D Post Baccalaureate Degree Examination – Aug 2013

Time: Three Hours

Max. Marks: 70 Marks

CLINICAL PHARMACOKINETICS & THERAPEUTIC DRUG MONITORING

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. Define Pharmacokinetic drug interactions. Explain with suitable examples how such drug interactions influence the ADME of drugs.
2. Explain with suitable examples the principle behind conversion of drug dosing from IV infusion to oral dose.
3. What is population pharmacokinetic data? Explain NONMEM method of analysis of such a data

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Explain the protocol for Therapeutic Drug Monitoring
5. Describe the methods of measurement of GFR and their significance.
6. Explain the influence of drug interaction on drug metabolism with respect to enzyme induction and inhibition.
7. Explain genetic polymorphism in drug metabolism with suitable examples.
8. What are nomograms and explain their use in clinical Pharmacokinetics with examples.
9. Explain the typical plot of pharmacologic response versus drug dose
10. Explain the role of clinical Pharmacokineticist in TDM
11. Enumerate and explain the variable factors in individualizing drug dosage regimen

SHORT ANSWERS

10 x 2 = 20 Marks

12. Enumerate the indications for TDM.
13. Define Pharmacogenetics
14. Mention any four causes for renal dysfunction.
15. Explain the importance of inhibition of biliary excretion.
16. How do you calculate Creatinine clearance in children?
17. Define extracorporeal removal of drugs and its importance.
18. List out any four Hepatic Metabolic markers their normal values and significance.
19. Explain intrinsic clearance of drugs
20. What is adaptive method for calculating Pharmacokinetic parameters?
21. Using the method of Cockcroft and Gault, calculate the creatinine clearance for a woman (36 year old 58 kgs) with serum creatinine value of 1.8 mg/dl
