

Rajiv Gandhi University of Health Sciences, Karnataka
V Year Pharm-D / II Year Pharm D Post Baccalaureate Degree Examination – 24-Nov-2022

Time: Three Hours

Max. Marks: 70

**CLINICAL PHARMACOKINETICS AND PHARMACOTHERAPEUTIC
DRUG MONITORING (RS & RS2)**

Q.P. CODE: 2876 / 2892

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. What are nomograms? Explain their applications in pharmacokinetic studies with examples. Give their advantages and disadvantages
2. a) Explain in detail the determination of dose and dosing interval of a drug
b) Describe the genetic polymorphism in CYP2D6 and 2C9 isoenzymes
3. What are the observed pharmacokinetic changes in patients with renal impairment? Discuss dosage adjustment in patients based on creatinine clearance

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Write the effects of inhibition and induction of enzymes on drug metabolism
5. Discuss Bayesian theory
6. Explain the effect of hepatic diseases on pharmacokinetics of drugs
7. Explain extracorporeal removal of drugs with their advantages and disadvantages
8. Explain the TDM of cyclosporine
9. Explain the principle of drug dosing in elderly
10. Write a note on pharmacokinetic and pharmacodynamic correlation
11. Explain the difference between traditional pharmacokinetics and population pharmacokinetics

SHORT ANSWERS

10 x 2 = 20 Marks

12. Explain why TDM is necessary for methotrexate
13. What do you understand by superposition?
14. Describe genetic polymorphism effect on drug transport
15. What are the methods for converting from IV to oral dosing?
16. Define hepatic clearance
17. Explain the methods for calculating creatinine clearance
18. Give the importance of clinical pharmacokinetics
19. What are the markers used for measurement of glomerular filtration rate?
20. Write the methods for the calculation of paediatric drug dose
21. Write in brief about the factors affecting dialyzability of drugs