

Rajiv Gandhi University of Health Sciences, Karnataka
IV Year B.Pharm Degree Examination – Aug / Sep 2011

Time: Three Hours**Max. Marks: 80 Marks**

PHARMACOKINETICS & THERAPEUTIC DRUG MONITORING
(Revised Scheme - 2)

Q.P. CODE: 1972

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. Describe various analytical procedures useful in TDM.
2. Describe various methods to assess bioavailability of a drug.
3. Explain kinetics for IV infusion administration following one-compartment open model.

SHORT ESSAYS (Answer any Eight)

8 x 5 = 40 Marks

4. Describe the pharmacokinetic factors considered for dosage regimen designing.
5. What is bioequivalence? Briefly explain protocols of bioequivalence studies.
6. Describe the effectiveness of TDM.
7. Explain the effect of GI content and drug-drug interactions on absorption of drug.
8. Discuss the advantages and limitations of compartment models.
9. Explain determination of dose frequency and dose of a drug in geriatric patients.
10. Explain the factors influencing drug distribution.
11. Explain the clinical importance of protein binding.
12. Write the TDM of cyclosporine.
13. Explain pseudo-order reaction.

SHORT ANSWERS

10 x 2 = 20 Marks

14. How does pH affect drug absorption?
15. Define absolute bioavailability, therapeutic equivalence, pharmaceutical equivalence and chemical equivalence.
16. Write a brief note on hepatic extraction ratio.
17. Write a note on total body clearance.
18. Draw a neatly labeled plasma drug vs time profile for orally administered drug.
19. Write units for AUC, Vd, Ke and biological half-life.
20. Write a note on evaluation of patients response.
21. Patient compliance
22. What is the importance of inulin clearance test?
23. Define loading dose and maintenance dose.