

Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D Degree (Post Baccalaureate) Examination – Dec-2014

Time: Three Hours

Max. Marks: 70 Marks

BIOPHARMACEUTICS AND PHARMACOKINETICS

Q.P. CODE: 2871

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 is Non-linear pharmacokinetic? Explain the Michaelis-Menten method in estimating the parameters.
2. Explain in detail pharmaceutical factors affecting drug absorption.
3. Define bioavailability and bioequivalence. Explain the methods of measurement of bioavailability.

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Explain the significance of protein binding.
5. Explain method of residuals in determining absorption rate constant.
6. Write statistical moment theory.
7. Deduce elimination rate constant in one compartment model with IV bolus administration.
8. Describe the principles of dosage regimen design.
9. Explain Wagner-Nelson method to calculate absorption rate constant.
10. Explain the of pharmacokinetics applications.
11. Factors affecting drug distribution

SHORT ANSWERS

10 x 2 = 20 Marks

12. Define Accumulation Index.
13. Define biliary clearance.
14. Define volume of distribution.
15. Multi compartment model
16. Influence of Particle size on absorption
17. Explain blood level curve for sustained release dosage forms.
18. Lipid bilayer theory
19. What is pinocytosis?
20. Passive diffusion
21. Absorption by active transport
