



Rajiv Gandhi University of Health Sciences, Karnataka

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

Time: Three Hours

Max. Marks: 70 Marks

BIOPHARMACEUTICS AND PHARMACOKINETICS

Q.P. CODE: 2888

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 AUC. Explain the various methods for determining the same.
2. Explain one compartment model with respect to extravascular administration.
3. Define Protein Binding. Explain its kinetics and significance in details.

SHORT ESSAYS (Answer any Six)

6 x 5 = 30 Marks

4. Explain the mechanisms of absorption in brief.
5. Explain the rat perfusion technique for determining the absorption.
6. Explain the study designs used for the conduct of bioavailability studies.
7. What are the advantages of compartmental models?
8. What do you understand by multi – compartment models? What tissues or organs are grouped under 1, 2 and 3 compartments?
9. Explain conjugation reactions in details.
10. What are the regulatory guidelines for bioavailability?
11. Explain MRT and how to calculate it in details?

SHORT ANSWERS

10 x 2 = 20 Marks

12. Define K_e and K .
13. Define Facilitated Transport.
14. Why do we model the data in pharmacokinetics?
15. Define pharmacokinetics.
16. What is glomerular filtration?
17. What is K_a ? How is it determined?
18. Define organ clearance and give a formula for the same.
19. Name the membranes which act as barrier for drug absorption.
20. What is the effect of food on absorption of drug?
21. Enlist the factors affecting biotransformation.

