

Rajiv Gandhi University of Health Sciences, Karnataka

IV Year B.Pharm Degree Examination – JAN-2019

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

BIOPHARMACEUTICS AND PHARMACOKINETICS (OS & RS)

Q.P. CODE: 1875

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. Explain the various mechanism of drug absorption.
2. Define drug distribution, name the various factors influencing drug distribution and write a note on Blood Brain Barrier.
3. Explain the method of residuals procedure in determining absorption rate constant with its applications and limitations.

SHORT ESSAYS (Answer any Eight)**8 x 5 = 40 Marks**

4. Write a brief note on dialysis and haemoperfusion.
5. Effect of gastric emptying and intestinal transit time on drug adsorption
6. Write a note on Pre-systemic metabolism of drugs.
7. Write a brief note on Two compartment model.
8. Explain Darson-Danniel theory in explaining cell membrane.
9. Dosage regimen adjustment in renal failure
10. Influence of process variables on drug absorption
11. Explain trapezoidal method in estimating bioavailability.
12. Name the Pharmacokinetic parameters with their final mathematical equations for one compartment Kinetics with iv bolus administration.
13. Write a note on renal Clearance.

SHORT ANSWERS**10 x 2 = 20 Marks**

14. Effect of ionization on drug absorption
15. Non renal clearance
16. For which drugs rapid gastric emptying is desirable
17. Define transcellular and paracellular drug absorption mechanisms.
18. Name the rate limiting steps in the absorption of lipophilic and hydrophilic drugs.
19. Limitations of one compartment model
20. Drug metabolizing organs
21. Onset time and onset of action
22. Binding of drugs to globulins
23. Absolute bioavailability and Relative bioavailability