

Supply

Rajiv Gandhi University of Health Sciences, Karnataka
IV Year Pharm-D / I Year Pharm-D Post Baccalaureate Degree Examination – 15-May-2025

Time: Three Hours

Max. Marks: 70

BIOPHARMACEUTICS AND PHARMACOKINETICS (RS & RS-2)

Q.P. CODE: 2871 / 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. Discuss in detail various pharmaceutical factors affecting drug absorption.
2. Explain one compartment open model for a drug administered as I.V Bolus. Give the schematic representation, graphs and equations for the same
3. Write in detail about protein binding and its significance.

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Explain glucuronic acid conjugation.
5. Explain the causes of non-linearity in pharmacokinetics.
6. Explain statistical moment theory.
7. What are the assumptions for multi-compartment models?
8. Explain how bioavailability is measured using plasma concentration data.
9. Explain the pore transport process.
10. Explain physiological barriers for drug distribution.
11. What is gastric emptying? Explain the factors influencing the same.

SHORT ANSWERS

10 x 2 = 20 Marks

12. Enlist different pharmacokinetic parameters.
13. Give Michaelis – Menten equation. Explain the terms.
14. Define MRT (mean residence time) and give its equation.
15. How drugs are classified according to Biopharmaceutical classification system?
16. What is apparent volume of distribution?
17. What is enzyme induction?
18. Define clearance.
19. Draw the structure of cell membrane.
20. Define bioavailability and bioequivalence.
21. What is passive diffusion?
