

Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D (I Year Pharm-D Post Baccalaureate) / IV Year Pharm-D (Post Baccalaureate) Degree Examination – 25-Nov-2022

Time: Three Hours

Max. Marks: 70 Marks

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. Explain the various biological factors affecting drug absorption.
2. Explain the pharmacokinetics of a drug administered as I.V. infusion which follows one compartment open model.
3. Define biotransformation. Explain with examples Phase I and Phase II reactions.

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Explain the various drug transport mechanisms.
5. Explain physiological barriers affecting drug distribution.
6. Explain how salt form of drugs affect oral absorption.
7. List factors affecting excretion of drugs. Explain any two.
8. Explain the kinetics of protein binding.
9. Write the applications of pharmacokinetic models.
10. Define bioequivalence. Explain various types of equivalence.
11. How do excipients affect absorption of solid dosage forms?

SHORT ANSWERS

10 x 2 = 20 Marks

12. List orally administered dosage form in order of their increasing absorption.
13. Define pharmacokinetics.
14. What is absolute and relative bioavailability?
15. Write the tests to determine non-linearity.
16. What is dosage regimen?
17. What is MRT?
18. List the plasma proteins to which drugs bind.
19. What is the effect of particle size and surface area on drug absorption?
20. What is pre-systemic metabolism?
21. Mention non-renal routes of clearance.
