

Rajiv Gandhi University of Health Sciences, Karnataka
Second Semester M. Pharm Degree Examination - 01-Jun-2023

[Time: 3 Hours]

[Max. Marks: 75]

ADVANCED BIOPHARMACEUTICS AND PHARMACOKINETICS

Q.P. CODE: 5170

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

Answer All The Questions

10 X 7.5 = 75 Marks

1. Explain the Pharmacokinetics of a drug given by IV bolus, follows one compartment open model.
2. Write the causes of nonlinearity in pharmacokinetics. Explain Michael's mention equation. How do you estimate K_m and V_{max} ?
3. Discuss in detail various BE study designs.
4. Define relative and absolute Bioavailability. Explain methods of Assessing Bioavailability.
5. Enumerate Biopharmaceutical classification system.
6. Explain Generic substitution and biosimilar drug products.
7. Discuss briefly *in-vitro*, *in-vivo* correlation of drug dissolution.
8. Define dissolution. Explain the process by considering Noyes-Whitney equation. Discuss any one mechanism of dissolution.
9. Explain Physicochemical factors affecting Drug Absorption.
10. Explain effect of Protein Drug interaction and tissue binding drug interactions.

* * * * *