Rajiv Gandhi University of Health Sciences

First Semester M. Pharm Degree Examination - MAY-2018

[Time: 3 Hours] [Max. Marks: 75]

Biopharmaceutics and Pharmacokinetics

Q.P. CODE: 5125

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

LONG ESSAY (Answer any Three) **3 X 10 = 30 Marks**

1. Explain intravenous bolus corresponding to one compartment model.
2. Classify dissolution testing models as per USP. Explain USP type I and Type II dissolution test apparatus.
3. Explain concept of bioequivalence. How do you study bioavailability and Bioequivalence?
4. Define absorption of drugs. Explain in detail structure of cell membrane.

SHORT ESSAY (Answer any Nine) **9 X 5 = 45 Marks**

5. Emphasize the passive diffusion of drug absorption.
6. Explain biological factors influencing absorption.
7. Enumerate the various methods to determine the rate of absorption. Explain any one method.
8. Explain role of salt and esters in improvement of dissolution of drugs.
9. Define BCS systems. Classify drugs according to BCS systems.
10. Graphical representation of method of residuals.
11. How do you determine volume of distribution by compartment models?
12. Explain the role of compartment modeling in designing of dosage form.
13. Explain Michalis-Menton equation.
14. How do you estimate K_m and V_{max} in nonlinearity kinetics?

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