

Question Paper

Exam Date & Time: 06-May-2024 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Instructions: Answer ALL questions.

Biopharmaceutics and Pharmacokinetics [PPR 4.5T-S1]

Marks: 70

Duration: 180 mins.

Section A

Answer all the questions.

Long Answer Questions (3 x 10 marks = 30 marks)

- 1) Explain the principle processes that determine the urinary excretion (10)
- 2) Describe kinetics of IV bolus one compartment model with necessary illustrations (10)
- 3) Explain the Bioavailability study protocol (10)

Section B

Answer all the questions.

Short Answer Questions (6 x 5 marks = 30 marks)

- 4) Write the different mechanism of absorption (5)
- 5) Explain the process of IV infusion for one compartment model (5)
- 6) Explain two compartment model for IV bolus administration (5)
- 7) Describe about two compartment model for oral administration (5)
- 8) Explain physiologically based pharmacokinetic models (5)
- 9) Explain multiple dose administration kinetics of IV bolus (5)

Section C

Answer all the questions.

Give Reasons for the Following (5 x 2 marks = 10 marks)

- 10) Age influences the process of absorption (2)
- 11) Non-linear kinetics is influenced by doses (2)
- 12) Urinary pH influences the process of excretion (2)
- 13) AUC is a measure of drug exposure (2)
- 14) Principle of superposition is useful in multiple dose kinetics (2)

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