



MANIPAL ACADEMY OF HIGHER EDUCATION

MPharm Theory End-Semester Examinations.
Specialization: Pharmaceutics and Industrial Pharmacy Specializations

MPharm Semester II - End Semester Examination May 2019

PCE-MPH202T Advanced Biopharmaceutics and Pharmacokinetics
(MPharm Pharmaceutics)

PCE-MIP201T Advanced Biopharmaceutics and Pharmacokinetics
(MPharm Industrial Pharmacy)

Exam Date: 04-05-2019

Advanced Biopharmaceutics and Pharmacokinetics [PCE-MPH202T]

Marks: 75

SECTION - A

Duration: 180 mins.

Answer all the questions.

Answer the following (10 marks x 5 = 50 marks)

- 1) Discuss the construction and working of rotating basket apparatus (10) for dissolution testing.
- 2) Explain the effect of formulation excipients on drug absorption (10) from tablets.
- 3) Explain dissolution profiles comparisons using f1 and f2 factors. (10)
- 4) With suitable graphs and equations discuss the one compartment (10) model when a drug is given intravenously and orally.
- 5) Discuss on the effect of drug protein-binding interactions and (10) drug-tissue-binding interactions. Support answers with suitable examples.

SECTION - B

Answer all the questions.

Answer the following (5 marks x 5 = 25 marks)

- 1) Discuss the different levels of IVIVC. (5)
- 2) Explain the effect of dose on pharmacological response. (5)
- 3) What is drug accumulation? What is its importance? Discuss and explain. (5)
- 4) What is the purpose of Bioavailability? Discuss. (5)
- 5) Write briefly on Bioequivalence studies by Cross-over study design. (5)

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