Question Paper

MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES
END SEMESTER THEORY EXAMINATIONS- MAY 2018
PROGRAM: MPHARM SEMESTER 2 (PHARMACEUTICS)
DATE: 07/05/2018
TIME: 2:00 PM - 5:00 PM

Computer Aided Drug Delivery Systems [PCE-MPH203T]

Marks: 50   **Duration: 180 mins.**

a

Answer all the questions.

Answer the following (5 marks x 8 = 40 marks)

1) What is Statistical model? How it is useful in Pharmaceutical research? Write a note on Mechanistic model with example. (5)

2) Explain the steps to achieve quality by design. (5)

3) Discuss the manufacturing automation in Pharmaceutical Industry. (5)

4) Discuss about the various challenges involved in developing computational models for drug distribution. (5)

5) Explain with neat diagram the 'reflection' with respect to sequential simplex optimization process. (5)

6) Explain copyright as an IPR tool for protection of innovative uses of computers. (5)

7) Briefly explain the role of Parameter sensitive analysis in computer aided biopharmaceutical characterization (5)

8) Discuss the computer simulations in pharmacokinetics and pharmacodynamics of whole organism. (5)

b

Answer all the questions.

Answer the following with specific answers (2 marks x 5 = 10 marks)

9) What is Hybrid system in clinical development? (2)

   A)

B) Write a note on staff training in clinical data collection and management. (2)

C) Describe the Empirical approach followed in modelling the solubility of drug molecules. (2)

D) Intestinal permeability is difficult to predict solely based on molecular mechanism. Give reason. (2)

E) In vitro In silico approach can be used to waive in vivo BE studies (2)

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