



[Time: 3 Hours]

[Max. Marks: 75]

Computer Aided Drug Delivery System

Q.P. CODE: 5171

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 model construction in computer aided GI simulation.
2. Describe about concept of optimization and various optimization parameters used in computer aided formulation development.
3. Write the Active Transport Systems used in computational modeling of drug disposition.
4. Explain the history of computers in pharmaceutical research and development.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

5. Write note on clinical data collection process.
6. Write short note on population modelling in pharmaceutical research and developments.
7. Discuss the importance of solubility and permeability in computational modeling of drug absorption.
8. Give pharmaceutical applications of computational fluid dynamics.
9. Enumerate the use of computers in market analysis.
10. Write the ethics of computing in pharmaceutical research.
11. Explain the parameter sensitivity analysis with examples.
12. Explain about biowaiver considerations.
13. Discuss about advantages and disadvantages of artificial intelligence in pharmaceutical industry.
14. Write short notes on regulatory and industry views on QbD.
