



[Time: 3 Hours]

[Max. Marks: 75]

Computer Aided Drug Delivery System -II

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 in detail the history of computers in pharmaceutical research and development.
2. Discuss in detail about computational modelling in drug absorption, distribution and excretion.
3. Write in detail about the role of computers in the development of pharmaceutical emulsions.
4. Define model. Give detailed explanation about model construction.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

5. Explain population modelling with the help of a suitable example.
6. Explain Choline transporter in transport of drug through blood brain barrier (BBB) and hPEPTI.
7. Explain the legal considerations for the protection of innovative uses of computers in pharmaceutical research and development.
8. Write about the Biowaiver considerations in bioequivalence studies.
9. Write the advantages and disadvantages of Automation in pharmaceutical Industry.
10. Explain the regulatory and Industry views on QbD.
11. Enlist the various uses of computers in market analysis.
12. Describe the parameter sensitivity analysis in computer aided biopharmaceutical characterization.
13. Give the importance of computational fluid dynamics in pharmaceutical research and development.
14. Explain the optimization parameters to be considered in the computer aided formulation and development.

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