



[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. Give general overview of history of computers in pharmaceutical Research and development.
2. What are the various computational techniques used in Absorption, Distribution and Excretion.
3. Discuss computer aided formulation development of microemulsion with example.
4. What is Artificial Intelligence? Give its pharmaceutical application along with Advantages and Disadvantages.

**SHORT ESSAY (Answer any Nine)**

**9 X 5 = 45 Marks**

5. Explain ICH Q8 guidelines.
6. Explain about population modeling.
7. Write about Organic Anionic Transporter (OATP) used in computational modeling.
8. Discuss about clinical Data collection.
9. Write a note on the concept of optimization.
10. Write about factorial design used in optimization.
11. Describe the computer simulation using isolated tissue or organism.
12. What is virtual trial in computer aided GI simulation.
13. Discuss the role of CFD (Computational Fluid Dynamics) in Pharma industry.
14. How is robotics and pharmaceutical automation influencing Pharma industry.

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