[Time: 3 Hours] [Max. Marks: 100]

Advances in Drug Delivery Systems (Revised Scheme 4)

Q.P. CODE: 9339

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessary. Answer any ten questions.

LONG ESSAY (Answer any TEN)

 $10 \times 10 = 100 \text{ Marks}$

- Illustrate the matrix type of diffusion controlled drug delivery system with example. Discuss the 1. pharmaceutical factors to be considered in the formulation of controlled drug delivery system.
- 2. Discuss the evaluation of polymers with examples.
- 3. Discuss the chemically modulated controlled drug delivery systems.
- 4. Explain the pH-controlled drug delivery system with examples.
- 5. What are ocuserts? Discuss ocular mucoadhesive drug delivery systems with examples.
- 6. Illustrate the production steps of monoclonal antibodies. Mention the problems associated with their use.
- 7. Discuss sonophoresis and iontophoresis as permeation enhancement techniques in transdermal delivery of drugs.
- 8. Discuss the various formulation approaches for parenteral controlled release preparations.
- 9. Discuss the formulation and evaluation of niosomes.
- 10. Discuss the applications of carbon nanotubes and nano crystals in drug delivery.
- 11. Explain nasal mucoadhesive drug delivery system with examples.
- 12. Explain the basic components of transdermal system.

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