[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.

## LONG ESSAY (Answer any TWO)

2 X 20 = 40 Marks

- 1. Explain the concepts, advantages and disadvantages of controlled release drug delivery systems.
- 2. Name various vesicular systems in nano drug delivery systems. Explain ethosomes, virosomes and carbon nano tubes (CNT).
- 3. Explain in detail about various rate controlled drug delivery systems.

## **SHORT ESSAY (Answer any FIVE)**

5 X 10 = 50 Marks

- 4. Explain the general synthesis and applications of polymers in drug delivery systems.
- 5. Explain hydro dynamically balanced drug delivery systems.
- 6. Give a note on development and evaluation of ocular drug delivery systems with its applications.
- 7. Explain the various formulations approaches used in the development of transdermal drug delivery systems with their evaluation.
- 8. Give a brief note on development and evaluation of implantable drug delivery systems.
- 9. Explain the various treatment methods for cancer by targeted drug delivery systems.

Safety issues of nano drug delivery systems **SHORT NOTES**  $2 \times 5 = 10 \text{ Marks}$ 

10.

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