

**[Time: 3 Hours]****[Max. Marks: 75]****Drug Delivery System****Q.P. CODE: 5128**

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. Write note on various Physiochemical and Biological factors approaches for SR or controlled release formulations.
2. Describe the importance of uptake of Antigens and Transdermal vaccines.
3. Explain the methods of Formulation and Evaluation of Occular drug delivery system.
4. Explain the various approaches used to Formulation of Feedback regulated drug delivery system.

**SHORT ESSAY (Answer any Nine)****9 X 5 = 45 Marks**

5. Describe the mechanically activated controlled drug delivery system.
6. Write note on importance of Bioelectronics medicines.
7. Explain various approaches used to Formulations of Transdermal drug delivery systems.
8. Describe the methods of Evaluation of Transdermal drug delivery systems.
9. Write note on PH activated drug delivery systems.
10. Write the principle involved in Formulation of Buccal drug delivery system.
11. Explain the advantages and disadvantages sustained release drug delivery system.
12. Write note on drug delivery systems of proteins and other macromolecules.
13. Write note on importance of 3D printing in pharmaceuticals.
14. Explain various methods used to Formulation of diffusion controlled delivery system.

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