[Time: 3 Hours] [Max. Marks: 75]

Advances in Drug Delivery System - I Q.P. CODE: 5126

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

LONG ESSAY (Answer any Three)

 $3 \times 10 = 30 \text{ Marks}$

- What are Transdermal DDS? Explain the mechanism of action of permeation enhancers. Add a note on evaluation of TDDS.
- 2. Define protein and peptide delivery. Explain the biomedical importance and need of protein and peptide delivery.
- 3. Describe rate controlled DDS. Classify it and discuss any two types in detail.
- 4. Define polymers. Classify them with examples. Explain evaluation of polymers.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

- 5. Describe different types of controlled release drug delivery systems.
- 6. Write a note anatomy and physiology of skin.
- 7. Write a note on osmotic pump.
- 8. Explain evaluation of buccal drug delivery systems.
- 9. Explain in brief the mechanism of drug delivery from controlled release formulation.
- 10. Explain in brief biological approaches for formulations of CRDDS.
- 11. Write short notes on vaccines drug delivery systems.
- 12. Define mucoadhesion. Explain polymers used in mucoadhesive drug delivery systems.
- Explain enzyme activated /pH sensitive DDS. 13.
- .nulati Define ocular drug delivery. Explain the formulation of occuserts. 14.