NOTE: Attempt all parts.

PART A

ATTEMPT ALL QUESTIONS   10X2=20

1. Define occular drug delivery system.

2. Enumerate the different type of naso-pulmonary drug delivery systems.

3. Define niosomes.

4. Define liposomes.

5. HBS (Hydro-dynamically Balanced Systems) is an approach to formulate the following delivery system:
a) TDDS   b) GRDDS   c) Microsphere   d) Liposomes

6. Give example for implant DDS.

7. The major component of mucous membrane is _____

8. Define microencapsulation technique.

9. Which of the following is used as a mucoadhesive polymer:
a) Span 80   b) Bentonite   c) Polysorbate   d) Carbopol

10. Ideal controlled delivery formulation should follow:
a) Zero order release   b) First order release   c) Mixed order release d) All of the above

PART B

ATTEMPT ANY TWO (2) QUESTIONS   2X10=20

11. Explain the various requirements of drug candidate to be selected for formulation in CDDS.

12. Discuss muco-adhesive drug delivery system, with its advantage. Enumerate the different mechanisms of muco-adhesion.

13. Define microencapsulation. Write the techniques & application of microencapsulation.

PART C

ATTEMPT ANY SEVEN (7) QUESTIONS   **7X5=35**

14. Explain any two approaches for formulation of transdermal drug delivery system.

15. Enlist various components of a transdermal patch.

16. Discuss the advantages & disadvantages of implants.

17. Explain the concept of liposomes, with its possible applications.

18. What is niosome? Write the application in drug delivery system.

19. Explain concept advantages and disadvantages of nanoparticles.

20. Difference between Addition Vs Condensation polymerization

21. Explain the characteristics of occular drug delivery system.

22. Define ocular drug delivery system. Explain different types of ocular.