[Total No. of Questions - 18] [Total No. of Printed Pages - 2]
(2066)

16398(J)

B. Pharmacy 8th Semester Examination

Novel Drug Delivery System (NS)

BP-482

Time : 3 Hours Max. Marks : 70

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

SECTION - A

Attempt any two questions (each question carries 10 marks)

1. Differentiate between sustained and controlled release drug delivery systems. Explain the mechanism of dissolution controlled-release dosage forms.

2. Write a detailed account of transdermal patches. Explain briefly important evaluation parameters of transdermal drug delivery systems.

3. What are liposomes, give their classification? Enlist methods employed for the preparation of liposomes and discuss mechanical dispersion methods in detail. (2×10=20)

SECTION - B

Attempt any eight questions (each question carries 5 marks)

4. Write a short note on mechanism of percutaneous absorption.

5. Give a brief account of iontophoretic drug delivery.

6. Give the classification of osmotic pumps along with a note on elementary osmotic pump.

[P.T.O.]

7. What is targeted drug delivery? Mention few examples of particulate carriers used as drug targeting systems.

8. Write a short note on any one of the following:

   (a) Niosomes

   (b) Nanoparticles

   (c) Resealed erythrocytes

9. Briefly describe any one of the methods used for the preparation of microspheres.

10. Give the classification of controlled release systems on the basis of drug release. Write a note on diffusion controlled release.

11. Write a brief note on ocular inserts.

12. What are buccal patches? Write a note on preparation of buccal patches.

13. Write a brief note on pH independent controlled release formulations. (5×8=40)

SECTION - C

Attempt all questions (each question carries 2 marks)

14. Draw an idealized plasma concentration versus time profile of immediate-release, delayed-release and sustained-release oral dosage form.

15. Write down the factors affecting ocular drug absorption.

16. Write down the important components of oral osmotic pumps.

17. Name different physicochemical properties considered while formulating a controlling release dosage form.

18. Write down few examples of bioadhesive polymers. (2×5=10)