Code: 13R00801 **R13**

B.Pharm IV Year II Semester (R13) Regular & Supplementary Examinations April 2018

NOVEL DRUG DELIVERY SYSTEMS

Time: 3 hours Max. Marks: 70

PART – A

(Compulsory Question)

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1 Answer the following: (10 X 02 = 20 Marks)

(a) Which type of drug to be formulated as timed release dosage form?
(b) State the merits of extended drug delivery system.
(c) Give two examples of osmotic agents.
(d) Mention the equation involved in diffusion controlled drug release.
(e) Classify the types of liposomes.
(f) Specify any four medical applications of nanoparticles.
(g) Give examples for penetration enhancer.
(h) Mention the techniques used for formulating transdermal drug delivery system.
(i) Write the tests meant for determining mucoadhesive property.
(j) State the merits of nasal drug delivery system.

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

2 Discuss the concept involved in extended and timed release dosage form.

OR

3 Explain the factors influencing the design of controlled release dosage form.

UNIT – II

4 Enumerate diffusion controlled mechanism with reference to Higuchi equation.

OR

5 Write the importance of pH independent system in dosage form development.

UNIT – III

6 Outline the formulation techniques involved in niosomes.

OR

7 Explain the formulation technique and applications of resealed erythrocytes.

UNIT – IV

8 What are the formulation requirements for transdermal drug delivery? Specify the role of each material.

OR

9 Describe the different evaluation parameters in transdermal drug delivery system.

UNIT – V

10 Outline the formulation parameters involved in Buccal drug delivery system.

OR

11 Explain the properties of mucoadhesive materials with suitable examples.

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